SERVICE MANUAL

Commercial Air Conditioning

5HP fixed frequency free multi

AU422XIBAA

AS122XABAA

AS122XCBAA AE122XCBAA AB122XCBAA AF122XCBAA

AS142XCBAA AE142XCBAA AB142XCBAA AF142XCBAA

AE212XCBAA AB212XCBAA

●Features

●Auto-check function

●Auto –restart function (optional)

●Group control function

●Weekly timer (optional)

●Variable Control modes

●The total capacity of indoor unit can be more than that of outdoor unit.

●With new environment friendly refrigerant R407C

HAIER GROUP

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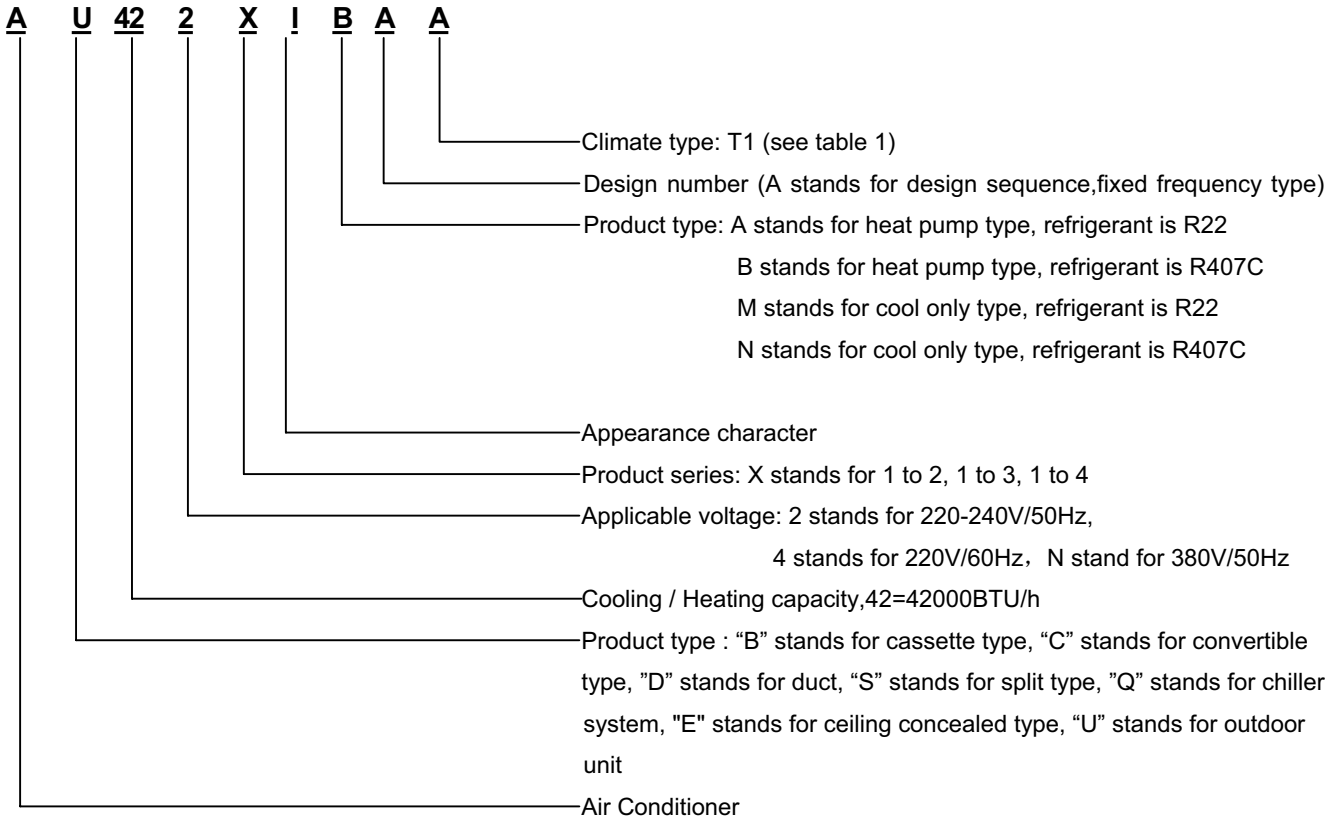
1.DESCRIPTION OF PRODUCTS & FEATURES

1.1. Products code explanation


A U 42 2 X I B A A
Climate type: T1 (see table 1)
Design number (A stands for design sequence,fixed frequency type)
Product type: A stands for heat pump type, refrigerant is R22
B stands for heat pump type, refrigerant is R407C
M stands for cool only type, refrigerant is R22
N stands for cool only type, refrigerant is R407C
Appearance character
Product series: X stands for 1 to 2, 1 to 3, 1 to 4
Applicable voltage: 2 stands for 220-240V/50Hz,
4 stands for 220V/60Hz，N stand for 380V/50Hz
Cooling / Heating capacity,42=42000BTU/h
Product type : “B” stands for cassette type, “C” stands for convertible type, ”D” stands for duct, “S” stands for split type, ”Q” stands for chiller system, "E" stands for ceiling concealed type, “U” stands for outdoor unit
Air Conditioner

1.2 Brief Introduction for T1、T2、T3 working condition

Type of Air Conditioner	Climate type		
	T1	T2	T3
Cooling Only	18 ℃~43℃	10℃~35℃	21℃~52℃
Heat pump	-7℃~43℃	-7℃~35℃	-7℃~52℃
Electricity Heating	~43℃	~35℃	~52℃

1.3 Operating Range of Air Conditioners

Temp. / Mode			Rated	Maximum	Minimum
Cooling	Indoor	DB ℃	27	32	18
		WB ℃	19	23	14
	Outdoor	DB ℃	35	43	10
		WB ℃	24	26	6
Heating	Indoor	DB ℃	20	27	15
		WB ℃	14.5	---	--
	Outdoor	DB ℃	7	24	-7
		WB ℃	6	18	---

1.4 Product character

1.4.1 Operating individually and operating simultaneously

The unit can realize individual operation which can control one unit running, stop, and adjusting running mode. Also the unit can operate simultaneously which control multi indoor units at the same time.

1.4.2 Variable quantity of indoor unit If you want to add or reduce the quantity of indoor units (of course the match must correspond with the design), it can meet your need at any time. More convenient, more random.

1.4.3 Universal outdoor unit, multiform indoor unit

We realize universal outdoor unit, and 6 kinds of indoor unit, choose freely according to customer's favor and indoor decoration, more stylish and more beautiful

1.4.4 The total capacity of indoor unit can be more than that of outdoor unit.

When all the indoor units are running at the same time, the actual capacity of every indoor unit is proportional according to outdoor capacity.

1.4.5 Long distribution pipe and high drop

The distance of outdoor and indoor can be max. 40m, and the drop between indoor and outdoor can be max. up to 25m, consequently, the installation can be more free, and can meet various need of the customer.

1.4.6 Ceiling concealed type unit be equipped with high efficiency filter, and its high static pressure can be up to 30Pa, running more silent, making room air more comfortable and more clean.

1.4.7 Auto-check function

The unit can display the malfunction codes on the control board by using advanced auto-check technology ,convenient for user find and dwell with the abnormal running.

1.4.8 Auto –restart function (optional);

All indoor units have auto-restart function. When the power supply cut off suddenly, the unit will automatically recover the previous running mode once the power supply is on.

1.4.9 Group control function

1.4.10 Weekly timer (optional)

1.4.11 Variable Control modes

Wired remote control ;

Remote control;

*Group control: a. With remote monitor function; b. Auto changeover function

2. SPECIFICATIONS

Item / Model				AU422XIBAA	
Function			——	Cooling	Heating
Capacity			BTU/h	42000	48000
Capacity			W	12500	14000
Total power input			W	5600	5600
Max. power input			W	6300	6300
EER or COP			W/W	2.30	2.50
Dehumidifying capacity			10 - ³×m³/h	/	/
Power cable			——	3 × 5.0mm²	
Communication cable			——	8x(0.75~1.25mm²)	
Power source			N, V, Hz	1, 220~230, 50	
Running / Max.Running current			A / A	26.0 / 30.0	26.0 / 30.0
Start current (system A / system B)			A	55.0 / 55.0	
Fuse size (recommended size)			A	40	
	Compressor	Model / Manufacture	——	PG420X3CS-4KU1 / TOSHIBA	
		Oil charge and type	——	720 CC (RB68AF/T68/α68TF)	
		Type	——	Rotary (Fix speed)	
		Number	——	2	
	Fan	Type × Number	——	Axial × 2	
		Speed	r/min	850±50/720±50/500±50	
		Motor output power	W	60 × 2	
		Air-flows (H/M/L)	m³/h	6000/4000/3000	
	Heat exchanger	Type / Diameter	mm	TP2M / 9.52x0.35	
		Total area	m²	about 1.17	
		Temp. scope	℃	cooling: 43~60 / heating: 6~7	
	Dimension (L×W×H)	External	mm	948×340×1250	
		Package	mm	1050×440×1375	
	Drainage pipe	material, diameter	mm	/	
	Refrigerant control method		——	Capillary tube	
	Defrosting method		——	Automatic	
	Type of 4-way valve		——	DPF-6	
	Material of reduce noise		——	XPE	
	Crankcase heater power		W	28*2	
	Noise level	H/M/L	dB(A)	60/-/-	
	Weight	Net / Shipping	kg / kg	101/121	
Piping	Refrigerant	Type / Charge	kg	R407C / A:2.2 B:2.45	
		No need to recharge	m	Piping length less than 5 meters in one way	
		Recharge	g/m	35	
	Pipe	Liquid	mm	Φ6.35	
		Gas	mm	Φ12.7	
	Connecting method		——	Flared	
	Between I.D &O.D	Drop between IU & OU	m	<=15m(Outdoor unit above indoor) <=10m(Outdoor unit below Indoor)	
		Drop between indoor units	m	≤5	
		Piping length	m	≤15 (per way)	
		Total length	m	≤30 (2 ways)	

* Long piping length and large drop between the indoor and outdoor unit (which exceeds standard value) will obviously reduce the capacity.

Item / Model				AS122XCBAA		AS142XCBAA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			BTU/h	12000	13000	14000	16000
Capacity			W	3500	3900	4100	4600
Dehumidifying capacity			10 - ³×m³/h	1.6	/	1.6	/
Power cable			——	3 × 0.75mm^2			
Communication cable			——	2x(0.75~1.25mm^2)			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A / A	0.15	0.15	0.15	0.15
	Fan	Type × Number	——	CROSS×1		CROSS×1	
		Speed	r/min	1100/1000/900		1100/1000/900	
		Motor output power	W	25		25	
		Air-flows (H-M-L)	m³/h	550/500/450		550/500/450	
	Heat exchanger	Type / Diameter	mm	TP2M / 6.35×0.7			
		Total area	m²	about 0.20		about 0.20	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	795×197×265		795×197×265	
		Package	mm	880×315×330		880×315×330	
	Drainage pipe	material, diameter	mm	PVC, 11.4/16.4			
	Controller type		——	Phone type infrared			
	Refrigerant control		——	Capillary tube			
	Fresh air hole dimension		mm	/			
	Electricity Heater		——	/			
	Noise level	H/M/L	dB(A)	39/37/30		39/37/30	
	Weight	Net / Shipping	kg / kg	7.6/10.6		7.6/10.6	
Piping	Refrigerant	Type	——	R407C			
	Pipe	Liquid	mm	6.35			
		Gas	mm	12.7			
	Connecting method		——	Flared			

Item / Model				AF122XCBAA		AF142XCBAA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			BTU/h	12000	13000	14000	16000
Capacity			W	3500	3900	4100	4600
Dehumidifying capacity			10 - ³×m³/h	1.6	/	1.6	/
Power cable			——	3 × 0.75mm^2			
Communication cable			——	2x(0.75~1.25mm^2)			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.25	0.25	0.25	0.25
	Fan	Type × Number	——	CROSS × 2		CROSS × 2	
		Speed	r/min	1100/1000/900		1100/1000/900	
		Motor output power	W	50		50	
		Air-flows (H/M/L)	m³/h	700/650/600		700/650/600	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.94×0.35		TP2M / 7.94×0.35	
		Total area	m²	about 0.25		about 0.25	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	720×205×630		720×205×630	
		Package	mm	780×280×690		780×280×690	
	Drainage pipe	material, diameter	mm	PVC, 11.4/16.4		PVC, 11.4/16.4	
	Controller type		——	Phone type infrared controller			
	Refrigerant control		——	Capillary tube			
	Fresh air hole dimension		mm	/		/	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	38/36/34		38/36/34	
	Weight	Net / Shipping	kg / kg	17/20.7		17/20.7	
Piping	Refrigerant	Type	——	R407C		R407C	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	12.7		12.7	
	Connecting method		——	Flared		Flared	

Item			Model	AS122XABAA	
Function			——	Cooling	Heating
Capacity			BTU/h	12000	13000
Capacity			W	3500	3900
Dehumidifying capacity			10 - ³×m³/h	1.0	/
Power cable			——	3 × 0.75mm2	
Power source			N, V, Hz	1, 220~230, 50	
Running current			A / A	0.25	0.25
Start current			A	/	
Indoor unit	Unit model (color)		——	AS122XABAA (white)	
	Fan	Type × Number	——	CROSS×1	
		Speed	r/min	1100/920/800	
		Motor output power	W	55	
		Air-flows (H-M-L)	m³/h	620/510/450	
	Heat exchanger	Type / Diameter	mm	TP2M / 6.35×0.7	
		Total area	m²	about 0.20	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60	
	Dimension (L×W×H)	External	mm	930×185×265	
		Package	mm	1013×277×331	
	Drainage pipe	material, diameter	mm	PVC, 11.4/16.4	
	Controller type		——	Phone type infrared	
	Refrigerant control		——	Capillary tube	
	Fresh air hole dimension		mm	/	
	Electricity Heater		——	/	
	Noise level	Distance 1m	dB(A)	45/38/33	
	Weight	Net / Shipping	kg / kg	9.6/12.6	
Piping	Refrigerant	Type	——	R407C	
	Pipe	Liquid	mm	6.35	
		Gas	mm	12.7	
	Connecting method		——	Flared	

Norminal condition: indoor temperature (cooling): 27℃DB/19℃WB, indoor temperature (heating): 20℃DB
Outdoor temperature(cooling): 35℃DB/24℃WB, outdoor temperature(heating): 7℃DB/6℃WB

Item			Model	AB122XCBAA		AB142XCBAA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			BTU/h	12000	13000	14000	16000
Capacity			W	3500	3900	4100	4600
Dehumidifying capacity			10 - ³×m³/h	1.6	/	1.6	/
Power cable			——	3 × 0.75mm^2			
Communication cable			——	2x(0.75~1.25mm^2)			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.20	0.20	0.20	0.20
	Fan	Type × Number	——	CENTRIFUGAL × 1		CENTRIFUGAL × 1	
		Speed	r/min	750/610/540		750/610/540	
		Motor output power	W	40		40	
		Air-flows (H/M/L)	m³/h	650/580/550		650/580/550	
	Heat exchanger	Type / Diameter	mm	TP2M / 9.52×0.8		TP2M / 9.52×0.8	
		Total area	m²	about 0.25		about 0.25	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	700×570×276		700×570×276	
		Package	mm	775×715×361		775×715×361	
	Drainage pipe	material, diameter	mm	PVC, 32/26(o.d./I.d.*)		PVC, 32/26(o.d./I.d.*)	
	Controller type		——	Phone type infrared controller or Wired controller			
	Refrigerant control		——	Capillary tube			
	Fresh air hole dimension		mm	100		100	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	43/40/37		43/40/37	
	Weight	Net / Shipping	kg / kg	26/28		26/28	
Piping	Refrigerant	Type	——	R407C		R407C	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	12.7		12.7	
	Connecting method		——	Flared		Flared	
Panel	Dimension	External	mm	630×630×80		630×630×80	
		Package	mm	680×680×155		680×680×155	
	Weight	Net / Shipping	kg / kg	4.2/6.3		4.2/6.3	

* o.d.=outer diameter; i.d.=inner diameter

Item			Model	AE122XCBAA		AE142XCBAA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			BTU/h	12000	13000	14000	16000
Capacity			W	3500	3900	4100	4600
Dehumidifying capacity			10 - ³×m³/h	1.6	/	1.6	/
Power cable			——	3 × 0.75mm^2			
Communication cable			——	2x(0.75~1.25mm^2)			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	1.35	1.35	1.35	1.35
	Fan	Type × Number	——	AXIAL× 1		AXIAL × 1	
		Speed (SH/H/M/L*)	r/min	1384/1350/1300/1230		1384/1350/1300/1230	
		Motor output power	W	50		50	
		Air-flows (SH/H/M/L*)	m³/h	1051/1007/985/930		1051/1007/985/930	
	Heat exchanger	Type / Diameter	mm	TP2M / 9.52×0.8		TP2M / 9.52×0.8	
		Total area	m²	about 0.12		about 0.13	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×H×D)	External	mm	828*225*450		828*225*450	
		Package	mm	976*288*526		976*288*526	
	Drainage pipe	material, diameter	mm	O.D.=20, I.D.=18			
	Controller type		——	Wired controller			
	Refrigerant control		——	Capillary tube			
	Fresh air hole dimension		mm	100		100	
	Electricity Heater		——	/		/	
	Noise level	SH/H/M/L*	dB(A)	45/42/40/38		45/42/40/38	
	Weight	Net / Shipping	kg / kg	20/22		20/22	
Piping	Refrigerant	Type	——	R407C		R407C	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	12.7		12.7	
	Connecting method		——	Flared		Flared	

* SH/H/M/L: Super high/High/Medium/Low, the values are measured in the condition: external static pressure is 0Pa.

Item			Model	AE212XCBAA		AB212XCBAA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			BTU/h	21000	24000	21000	24000
Capacity			W	6150	7000	6150	7000
Dehumidifying capacity			10 - ³×m³/h	2.5	/	2.5	/
Power cable			——	3 × 0.75mm²			
Communication cable			——	2x(0.75~1.25mm²)			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	1.35	1.35	0.80	0.80
	Fan	Type × Number	——	CENTRIFUGAL × 1		CENTRIFUGAL × 1	
		Speed	r/min	1100/970/790/580		700/590/470	
		Motor output power	W	50		30	
		Air-flows (H/M/L)	m³/h	1000/900/720/550		1200/1000/800	
	Heat exchanger	Type / Diameter	mm	TP2M / 9.52×0.8		TP2M / 9.52×0.8	
		Total area	m²	about 0.20		about 0.30	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	1124×450×225		840×840×240	
		Package	mm	1272*288*526		910×910×300	
	Drainage pipe	material, diameter	mm	O.D.=20, I.U.=16		PVC, 32/26(o.d./I.d.*)	
	Controller type		——	Wired controller		Infrared controller	
	Refrigerant control		——	Capillary tube		Capillary tube	
	Fresh air hole dimension		mm	100		/	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	45/42/40		46/43/40	
	Weight	Net / Shipping	kg / kg	28/32		30/32	
Piping	Refrigerant	Type	——	R407C		R407C	
	Pipe	Liquid	mm	9.52		9.52	
		Gas	mm	15.88		15.88	
	Connecting method		——	Flared		Flared	
Panel	Dimension (L×W×H)	External	mm	/		950×950×80	
		Package	mm	/		980×980×100	
	Weight	Net / Shipping	kg / kg	/		6.0/9.0	

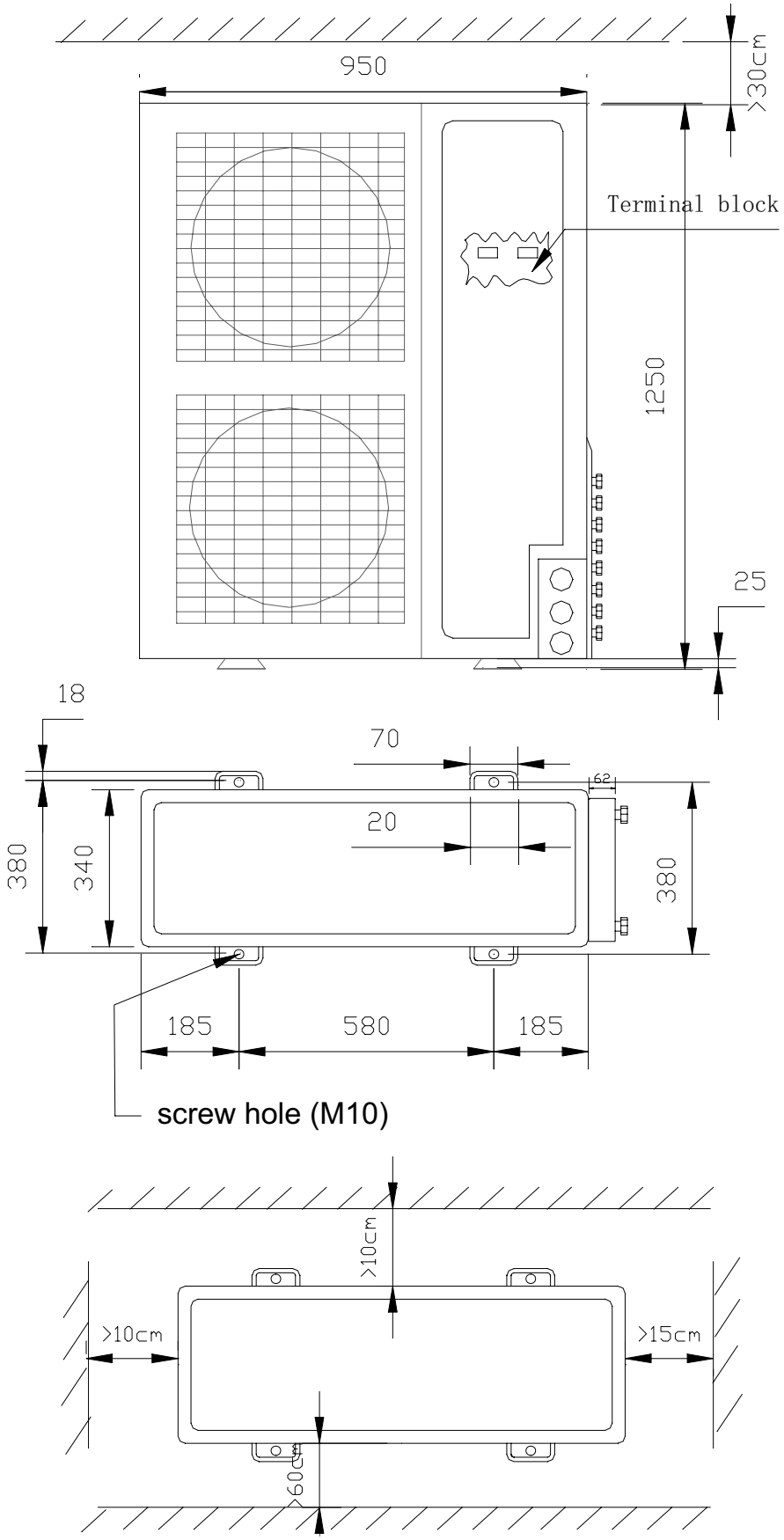
* o.d.=outer diameter; i.d.=inner diameter

characteristic for sensors

model	part number	part name	characteristic
AU282XHBAA	001A3900153	ambient temp sensor	1.R25=5KΩ±1%，B25/50=3450K±1% 2.R25=5KΩ±1%，B25/50=3450K±1%
	0010450243	A system coil temp sensor	R25=5KΩ±1%，B25/50=3450K±1%
	0010450398	A system discharging temp sensor	R80=50KΩ±3%，B25/80=4450K±3%
	0010451344	B system discharging temp sensor	R80=50KΩ±3%，B25/80=4450K±3%
AU422XIBAA	0010451343	ambient temp sensor, B system coil temp sensor	R25=5KΩ±1%，B25/50=3450K±1%
	0010450243	A system coil temp sensor	R25=5KΩ±1%，B25/50=3450K±1%
	0010450398	A system discharging temp sensor	R80=50KΩ±3%，B25/80=4450K±3%
	0010451344	B system discharging temp sensor	R80=50KΩ±3%，B25/80=4450K±3%
AF-	001A3900059	coil temp sensor	1.R25=10KΩ±3%，B25/50=3700K±3% 2.R25=23KΩ±2.5%，B25/50=4200K±3%
AE-	001A3900006	gas pipe temp sensor	R25=10KΩ±3%，B25/50=3700K±3%
AB-	001A3900006	gas pipe temp sensor	R25=10KΩ±3%，B25/50=3700K±3%

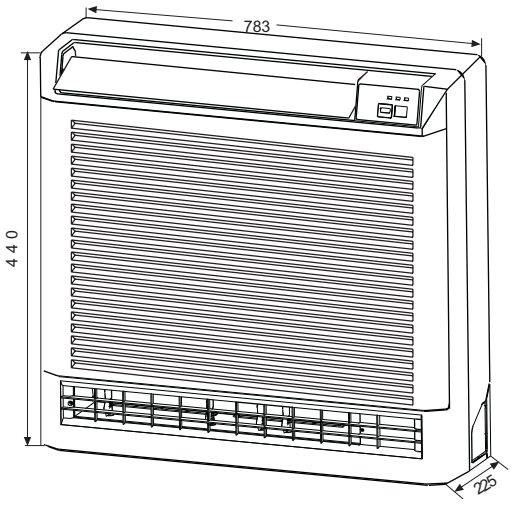
4. Net dimension of indoor and outdoor

4.1 Outdoor unit: AU422XIBAA

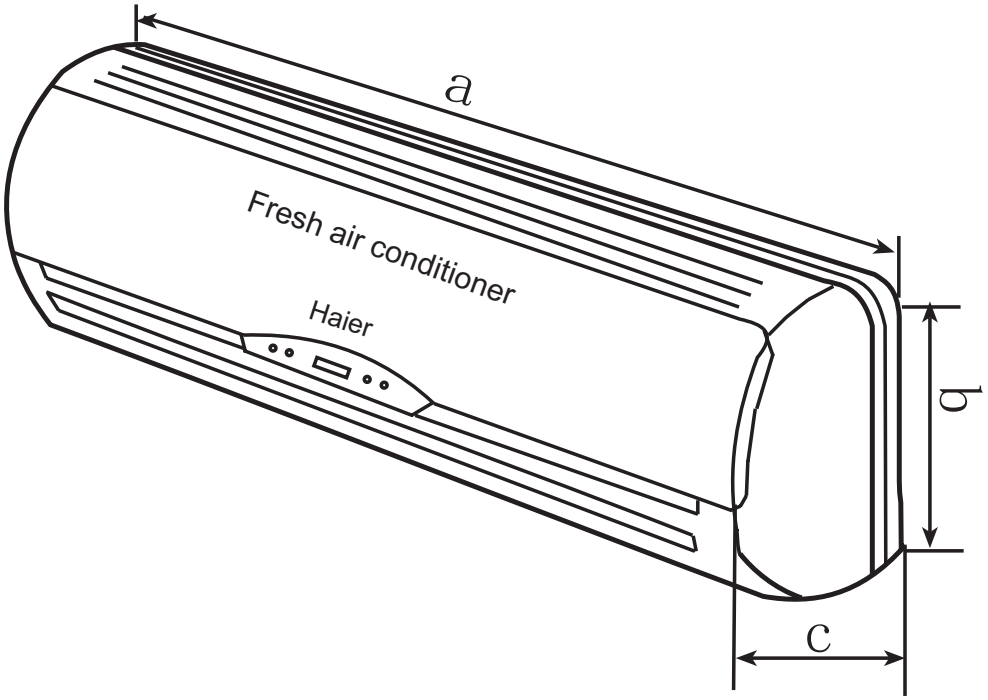


4.2 Indoor units

Model: AF122XCBAA

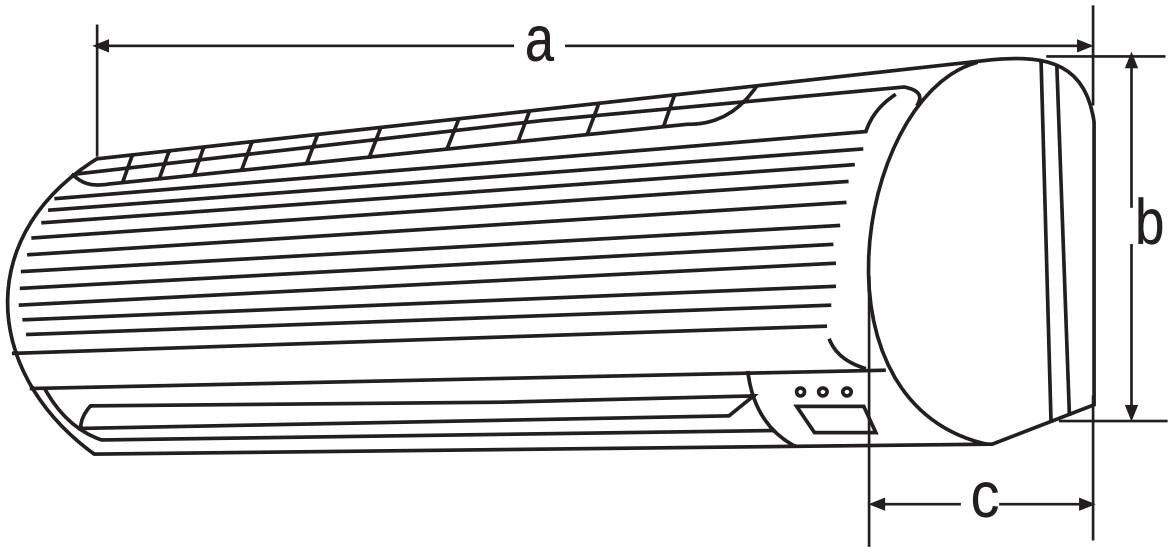


Model: AS122XCBAA, AS142XCBAA



a	b	c
795	265	182

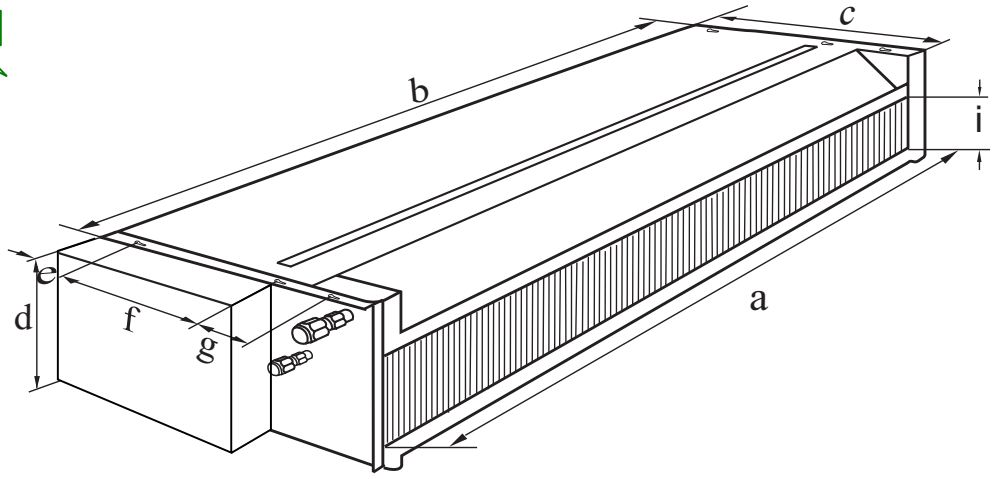
Model: WALL MOUNTED TYPE



model	a	b	c
AS122XABAA	930	265	185

Model: AE122XCBAA, AE142XCBAA、AE212XCBAA

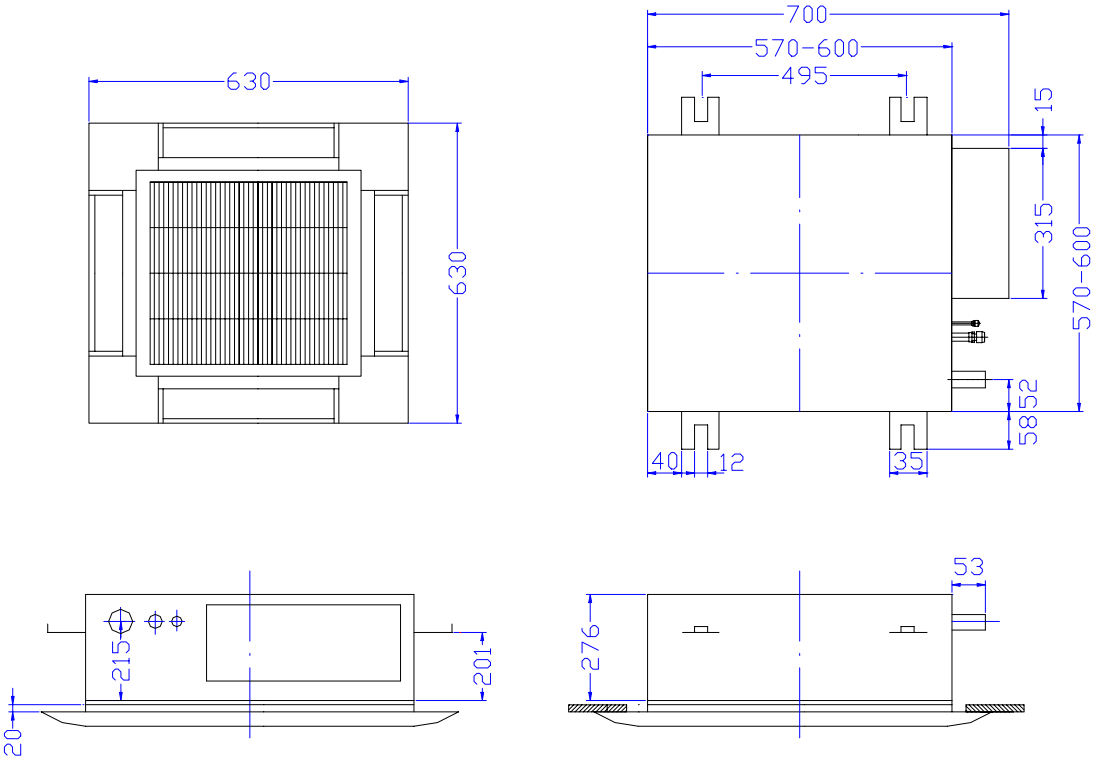
UPDATED



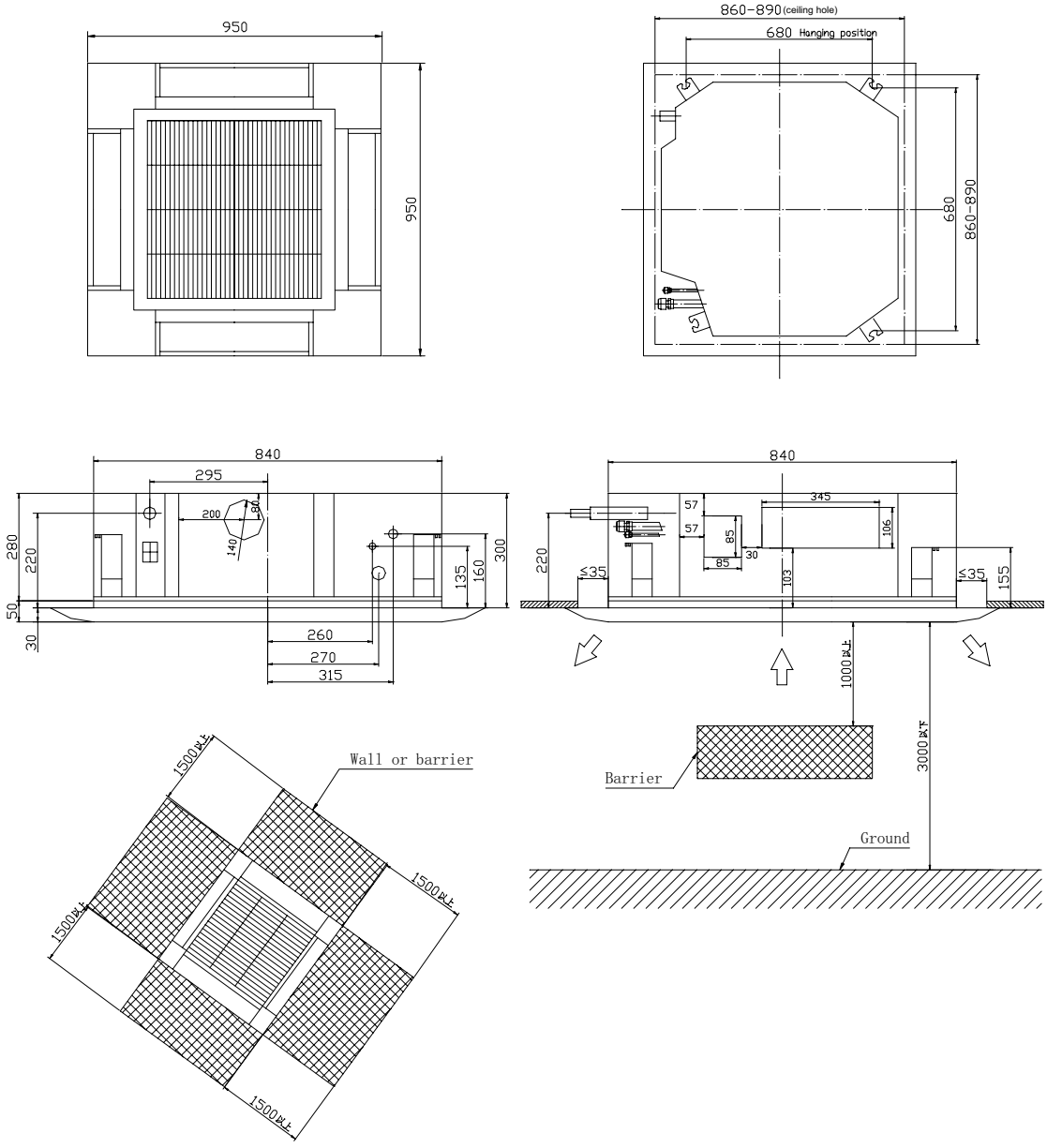
Installation dimension: (Unit: mm)

TYPE	a	b	c	d	e	f	g	i
AE072XCBAA, AE092XCBAA	615	648	452	225	55	225	125	100
AE122XCBAA, AE142XCBAA	770	804	452	225	55	225	125	100
AE212XCBAA	1064	1099	452	225	55	225	125	100

Model: AB122XCBAA, AB142XCBAA



Model: AB212XCBAA



3 SAFETY PRECAUTIONS

- Please read these "Safety Precautions" first then accurately execute the installation work.
- Though the precautionary points indicated herein are divided under two headings, △WARNING and △CAUTION those points which are related to the strong possibility of an installation done in error resulting in death or serious injury are listed in the △WARNING section. However, there is also a possibility of serious consequences in relationship to the points listed in the △CAUTION section as well.
  In either case, important safety related information is indicated, so by all means, properly observe all that is mentioned.
- After completing the installation, along with confirming that no abnormalities were seen from the operation tests, please explain operating methods as well as maintenance methods to the user (customer) of this equipment, based on the owner's manual.

Moreover, ask the customer to keep this sheet together with the owner's manual.

△ WARNING

- This system should be applied to places of office, restaurant, residence and the like. Appliaction to inferior environment such as engineering shop could cause equipment malfunction.
- Please entrust installation to either the company which sold you the equipment or to a professional contractor. Defects from improper installations can be the cause of water leakage, electric shocks and fires.
- Execute the installation accurately, based on following the installation manual. Again, improper installations can result in water leakage, electric shocks and fires.
- When a large air-conditioning system is installed to a small room, it is necessary to have a prior planned countermeasure for the rare case of a refrigerant leakage, to prevent the exceeding of threshold concentration. In regards to preparing this countermeasure, consult with the company from which you purchased the equipment, and make the installation accordingly. In the rare event that a refrigerant leakage and exceeding of threshold concentration does occur,there is the danger of a resultant oxygen deficiency accident.
- For installation, confirm that the installation site can sufficiently support heavy weight. When strength is insufficient, injury can result from a falling of the unit.
- Execute the prescribed installation construction to prepare for earthquakes and the strong winds of typhoons and hurricanes, etc. Improper installations can result in accidents due to a violent falling over of the unit.
- For electrical work, please see that a licensed electrician executes the work while following the safety standards related to electrical equipment, and local regulations as well as the installation instructions, and that only exclusive use circuits are used.
  Insufficient power source circuit capacity and defective installment execution can be the cause of electric shocks and fires.
- Accurately connect wiring using the proper cable, and insure that the external force of the cable is not conducted to the terminal connection part, through properly securing it. Improper connection or securing can result in heat generation or fire.
- Take care that wiring does not rise upward, and accurately install the lid/service panel. Its improper installation can also result in heat generation or fire.

△ WARNING

- When setting up or moving the location of the air conditioner, do not mix air etc. or anything other than the designated refrigerant (please see nameplate) within the refrigeration cycle.
- Rupture and injury caused by abnormal high pressure can result from such mixing.
  Always use accessory parts and authorized parts for installation construction. Using parts not authorized by this company can result in water leakage, electric shock, fire and refigerant leakage.
- The position of indoor unit must be above the floor 2.5m.

△ CAUTION

- Execute proper grounding. Do not connect the ground wire to a gas pipe, water pipe, lightening rod or a telephone ground wire.
  Improper placement of ground wires can result in electric shock.
- The installation of an earth leakage breaker is necessary depending on the established location of the unit. Not installing an earth leakage breaker may result in electric shock.
- Do not install the unit where there is a concern about leakage of combustible gas.
  The rare event of leaked gas collecting around the unit could result in an outbreak of fire.
- For the drain pipe, follow the installation manual to insure that it allows proper drainage and thermally insulate it to prevent condensation. Inadequate plumbing can result in water leakage and water damage to interior items.

The unit capacity and performance mode:

(A stands for system A, B stands for system B)

Performance data of combination "AU422XIBAA+122X*BAA×4" as followings:

Performance mode		A: AF122*1 AS122*1 AB122*1 AE122*1	B: AF122*1 AS122*1 AB122*1 AE122*1	A: AF122*2 AS122*2 AB122*2 AE122*2	B: AF122*2 AS122*2 AB122*2 AE122*2	A: AF122*2 AS122*2 AB122*2 AE122*2	B: AF122*2 AS122*2 AB122*2 AE122*2
cooling	Nominal capacity（W）	3800	3800	6250	6250	12500	
	Rated power input（W）	2200	2200	2350	2350	4700	
	Rated current（A）	11.0	11.0	11.5	11.5	23.0	
heating	Nominal capacity（W）	4500	4500	7000	7000	14000	
	Rated power input（W）	2600	2600	2300	2300	4600	
	Rated current（A）	13.0	13.0	11.5	11.5	23.0	

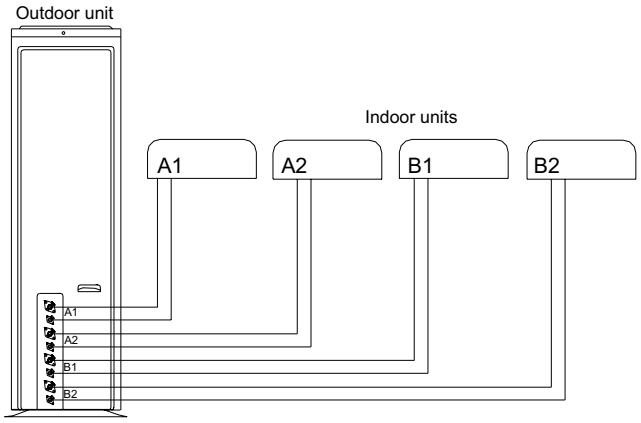
Must pay special attention to the match style, to see the following table:

1 to 2		**1 to 3**		
A	**B**	**A**	**B**	
AE212XCBAA*1	AE212XCBAA*1	AE212XCBAA*1	AF122XCBAA×2	AF142XCBAA×2
AB212XCBAA*1	AB212XCBAA*1	AB212XCBAA*1	AS122XCBAA×2	AS142XCBAA×2
			AB122XCBAA×2	AB142XCBAA×2
			AE122XCBAA×2	AE142XCBAA×2
			AS122XABAA×2	

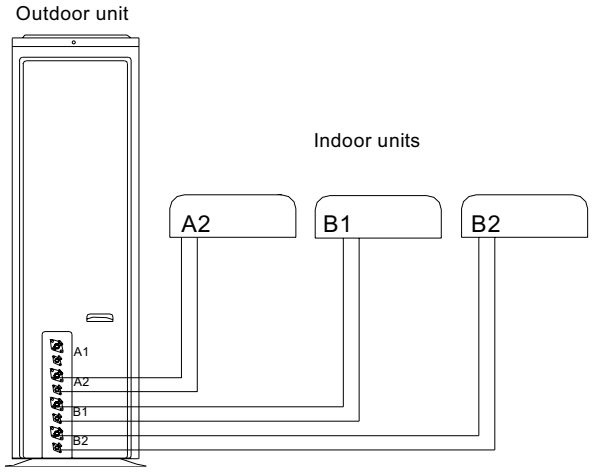
1 to 4			
A		**B**	
AF122XCBAA×2	AF142XCBAA×2	AF122XCBAA×2	AF142XCBAA×2
AS122XCBAA×2	AS142XCBAA×2	AS122XCBAA×2	AS142XCBAA×2
AB122XCBAA×2	AB142XCBAA×2	AB122XCBAA×2	AB142XCBAA×2
AE122XCBAA×2	AE142XCBAA×2	AE122XCBAA×2	AE142XCBAA×2
AS122XABAA×2		AS122XABAA×2	

Pipe connections:

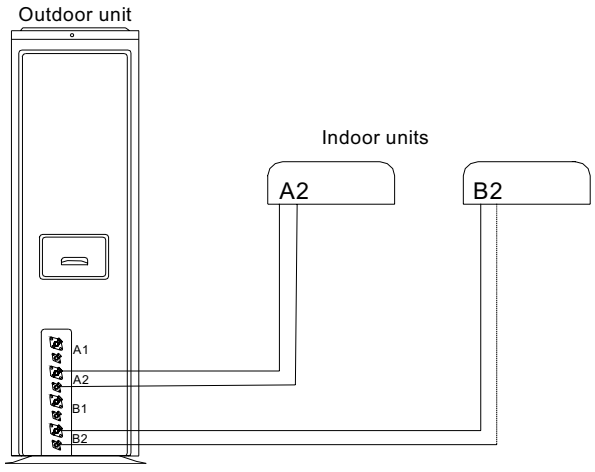
1 TO 4



1 TO 3(except for 21000BTU/h units)



1 TO 2(except for 21000BTU/h units)



Communication Wire connection:

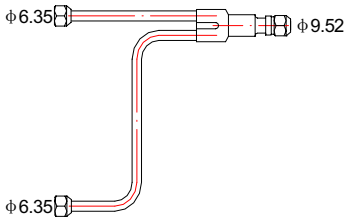
1. The indoor unit whose liquid pipe is connected to A1 in A system is called unit A1, its communication wire of A1(3)、 A1(4) should be connected to A1(P)、A1(Q) respectively.
2. The indoor unit whose liquid pipe is connected to A2 in A system is called unit A2, its communication wire of A2(3) 、A2(4) should be connected to A2(P)、A2(Q) respectively.
3. The indoor unit whose liquid pipe is connected to B1 in B system is called unit B1, its communication wire of B1(3) 、B1(4) should be connected to B1(P)、B1(Q) respectively.
4. The indoor unit whose liquid pipe is connected to B2 in B system is called unit B2, its communication wire of B2(3) 、B2(4) should be connected to B2(P)、B2(Q) respectively.

Note: Because the customers themselves match the communication wire, and the P and Q are nonpolar, the customers must use shielded communication wires.

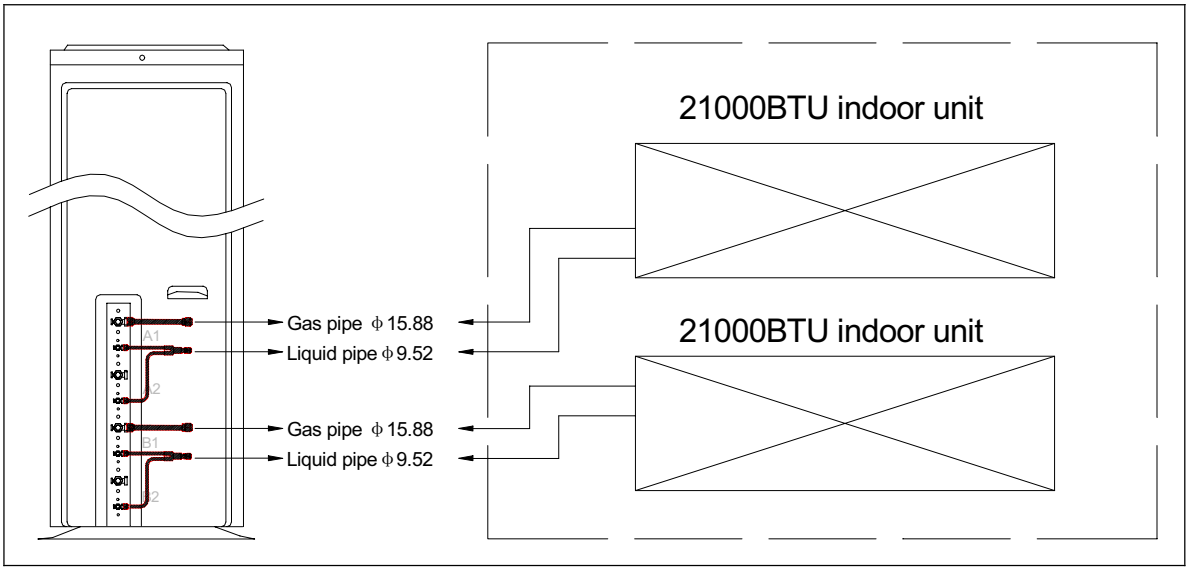
Special Installation Guide to 21000BTU indoor units on Free Multi system

Only for outdoor unit AU422XIBAA working with 21000BTU indoor units

1. Special accessory pipes for 21000BTU indoor units:

A	B
Changing pipe (1/2-5/8)	**Collecting pipe (1/4-3/8)**
	

2. Pipe installations:

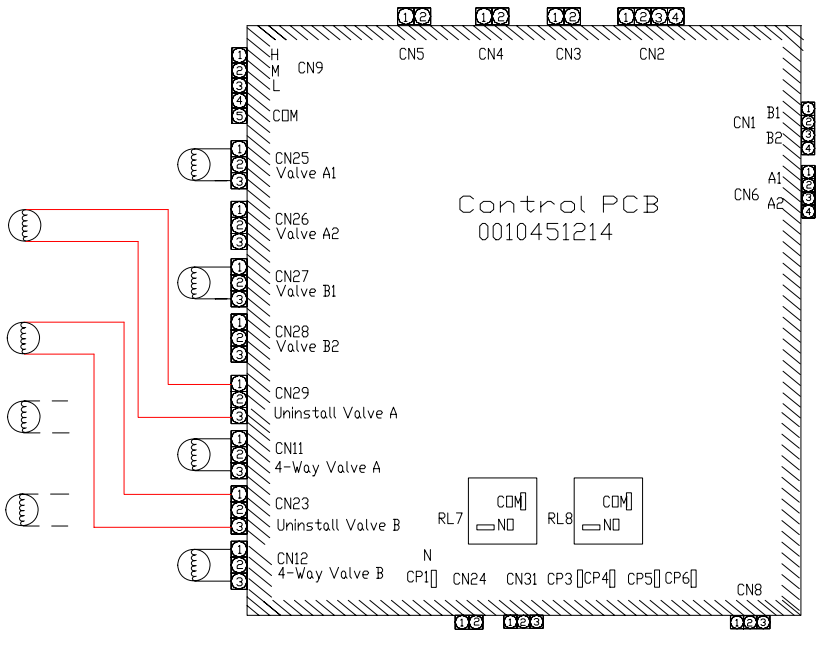


3. Outdoor wiring diagram should be changed as the following:

Coil of solenoid vavle A2 should be changed to connected with CN29.

Coil of solenoid vavle B2 should be changed to connected with CN23.

By-pass vavle on both system A and system B should be pulled out and not connected.

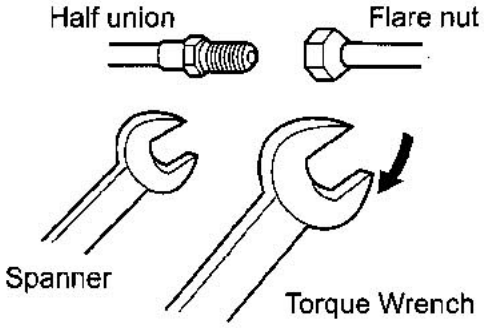


5. Installation instructions

5.1 Installation of outdoor unit

5.1.1 Connection of pipes

- Coat the flaring seal face with refrigerant oil.
- To bend a pipe, give the roundness as large as possible not to crash the pipe.
- To connect a pipe, fit the centers and tighten the nut hand tight, then use spanner of torque wrench to tighten it.



Forced fastening without careful, centering may damage the threads and cause a leakage of gas.

Pipe Diameter (Φ)	Fastening Torque
Liquid Side 6.35mm (1/4”)	18N.m
Gas Side 12.7mm (1/2”)	50N.m

Be careful that the dirty matters, such as wastes or sands, shall not enter the pipe.

5.1.2 Connection

- Loosen the screws on terminal block and insert the lugs fully into terminal block, then tighten the screws.
- Insert the cable according to terminal number in a same manner as the indoor unit.
- If wiring is not correct, proper operation cannot be carried out and controller may be damaged.
- Use the same method on indoor unit; insert signal wire into respective socket.
- Fix the cable with a clamp.

5.1.3 Purging Method

Air purging must be finished within 10 min, turning on the power, if it failed, purging again.
During air pruging, do not run indoor unit.
Purge air out of indoor unit and piping, the unit should be purged respectively.

Push the air out of indoor unit and piping as follows:

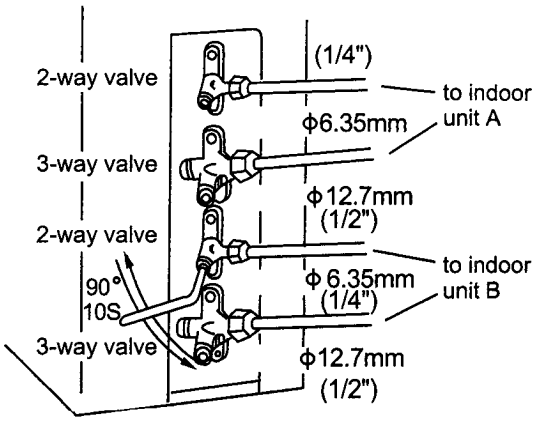
(1) Remove the valve cap on 2-way valve in outdoor unit.

(2) Loosen by 1/2 turn the flare nut of gas pipe, which is connected to 3-way valve.

(3) Loosen the valve rod of 2-way valve by 90 degrees (use a hexagon wrench) for about 10 seconds, air will be pushed out from flare nut on gas pipe, tighten flare nut with specified torque.

(4) After purging air in the all indoor units and their pipes, open 2-way and 3-way valves with specified torque.

(5) Tighten caps on all valves.



	Tightening torque N.m
Valve rod	7 - 9
Valve cap	2 - 25

- When connecting pipe exceeds 10 meters, 16 g refrigerant shall be added per exceeding meter. Charge according to the following list.

Piping lenth	< 10m	15m	20m
Additional amount	No need	80g	160g

5.2 Installation of indoor unit for console type

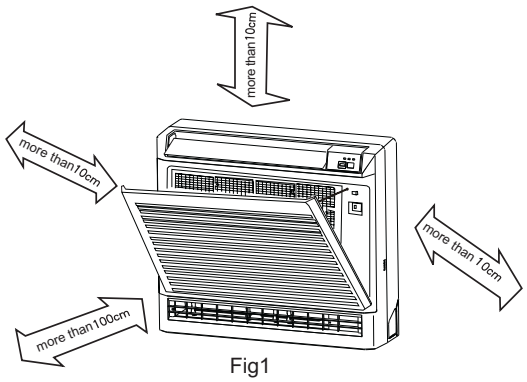


Fig1

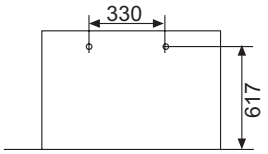


Fig2

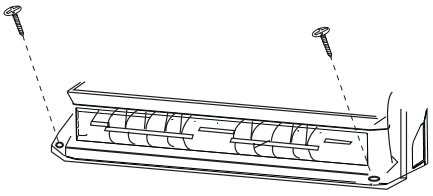


Fig3

Installation of indoor unit
selection of installation place

- Place where it is easy to route drainage pipe and outdoor piping.
- Place ,away from heat source and with less direct sunlight.
- Place where cool and warm air could be delivered evently to every corner of the room.
- Place near power supply socket.Leave enough space around the unit.
- Place ,robust not causing vibration,where the body can be supported sufficiently.
- To prevent interference, place it at least 1m away from other electric machines, such as TV set, radio.

Installing

- According to the dimension of the figure 2 shown, nail two cement steel nails on the wall,Keep 2~3 mm out.then hang the back of the unit on them.
- There must be no gap between the indoor unit and wall.
- Remove the front panel,then use two expansible screws to fix the unit on the floor.As figure 3 shown.
- Once refrigerant piping and drain piping connections are complete,fill the gap of the throght hole with putty.
- Attach the front panel and front grille in their orginal positions once all connections are complete.

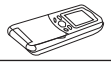
Tool necessary

1. Screw driver
2. Hacksaw
3. 70mm dia.hole core drill
4. Spanner(dia. 17,27mm)
5. Spanner(14,17,27mm)
6. Pipe cutter
7. Flaring tool
8. Knife
9. Nipper
10. Gas leakage detector or soap water
11. Measuring tape
12. Reamer
13. Refrigerant oil

Standard accessories

Following parts shall be field supplied

Mark	Part name
Ⓐ	Adhensive tape
Ⓑ	Pipe clip
Ⓒ	Connecting hose
Ⓓ	Insulation material
Ⓔ	Putty
Ⓕ	Drain hose

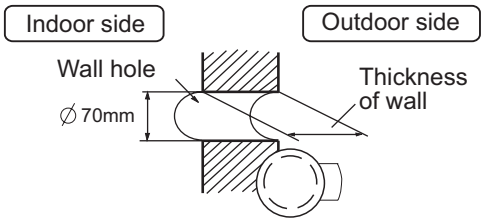
No.	Shape and description	QTY
①	 Remote controller	1
②	Wire clip	4
③	Self-tapping screw	4
④	Wall hole cover	1
⑤	Dry battery #7	1
⑥	Cement steel nail	**6**

Note: There isn't connecting wire with this unit.

Fixing of the unit

1.Position of the wall hole

Wall hole should be decided according to installation place and piping direction.(refer to installation drawings).



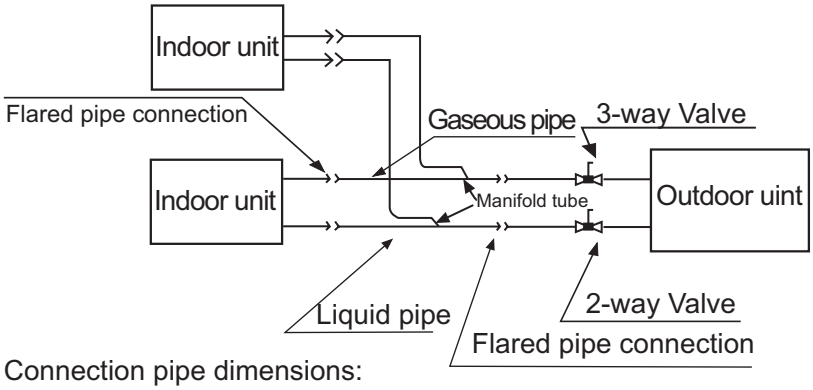
(Cross section of wall hole)

2. Making a wall hole

Drill a hole of 120X70mm dia. with a little slope towards outside.

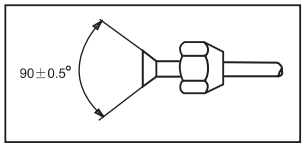
3. Piping connection

(1)Schematic diagram for unit connection



(2) Connection pipe dimensions:

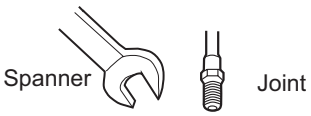
Pipe Value	Torque
Liquid 6.35mm	18 N·m
Gaseous 12.7mm	50 N·m



- Apply and tighten the nut.

(3)Maximum length and height difference of connecting pipe

- Maximum length: 20m; Height difference: 10m
- To ensure efficiency, shortest possible pipe should be used.



Threads on the pipes may be damaged when tightening if the pipes are not well aligned.

Cautions for pipe connection

- Pipes free from twists, deformation, water, dust.
  Dedicated tools for each R407C and R22 should be used and stored separately.
- Optimized radii of bends
- Insulation to be applied on all gaseous pipes
- Flared section free from cracks

(4) Pipe connection process

Apply refrigeration oil on the end of the pipe to be connected and on the flared section.
Align the pipes to be connected and tighten the nut. (See the figure)
Ensure that no foreign articles enter into the pipes.

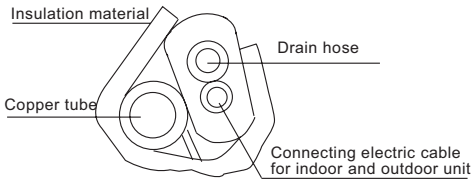
Piping connection of the indoor unit

1. Arrangement of piping and drainage pipe

After opening inlet grill,you will see a control box.

Remove the cover before working.

Cut away, with a hammer or a saw, the lid for piping according to piping direction.



According to the piping method, connect the piping on indoor unit with union of connection pipe.

Arrange the piping as per the wall hole and bind drain hose connecting electric cable and piping together with polyethylene tape.

Insert the bound piping connecting electric cable and drain hoes through wall hole to connect with outdoor unit.

2. Arrangement drain hose

Drain hose shall be placed in under place.

There should be a slope when arrange drain hose. Avoid up and down waves in drain hose.

If humidity is high, drain pipe(especially in room and indoor unit) must be covered with installation material.

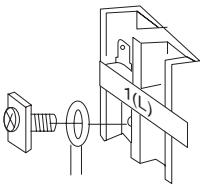
Electric wiring :

Process of wire connections

1. Loop terminal
   After removing the screw, fix the wire ring on the screw, reinsert the screw into the block terminal and then tighten the screw.

2. Straight terminal
   After loosening the screw, inset the wire end into the block terminal and then tighten the screw. Slightly pull the wire to see if it is tightly fixed.

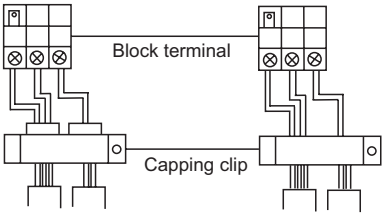
3. Wire capping
   After completion of connection, capping clips must be applied on the external sleeve of the wires.



Wiring diagram of loop terminals

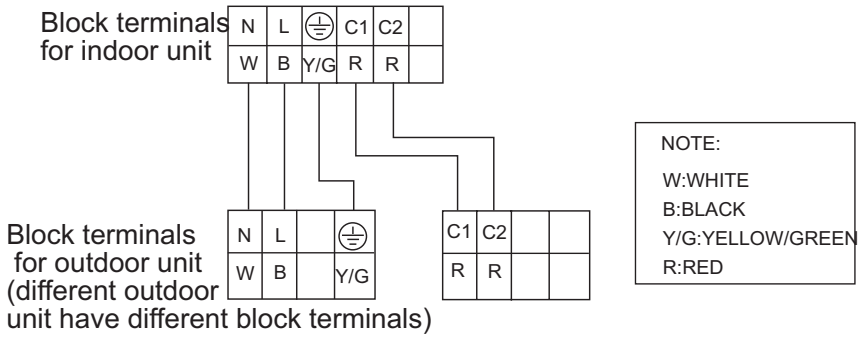
Wiring of indoor unit

- Remove air intake screen and take out the front wires.
- Connect the wires as specified in the above methods and diagrams for indoor unit and wire connections.
- Properly apply capping clips on the wires.
- Replace the air intake screen.
- Do not link the connecting and signal wire with the same cable, a snug space must be maintained between connecting and signal wires.
- Shield of the signal wire should be spot grounded.



Wiring diagram:

Wiring diagram:



Note:

- When connecting indoor and outdoor wire, check the number on indoor and outdoor terminal blocks. Terminals of same number and same color shall be connected by the same wire.
- Incorrect wiring may damage air conditioner's control or cause operation failure.

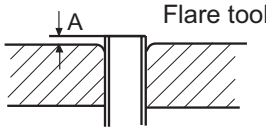
Others

1.Power supply requirements:

- Voltage: single-phase1PH,220-230V*,50Hz
- Dedicated electrical cable should be installed by a qualified technician in accordance with the state regulation for electrical engineering.
- The power source must be grounded.
- A circuit breaker must be installed
- Electrical cables should be connected by ìYî method. Damaged or wornelectrical cable must be replaced by authorized after sales agents.
- The power plug should be connected as follows: L for live line, N for neutral line and ⏚ for grounding.
- Connection parameters: H05RN-F 3G(1.0-1.5)mm^2
- Signal parameters: H05RN-F2X(0.75-1.5)mm^2 (Shieded wire)
- Cables for power supply, connection and signals are prepared by the owner.

2.Piping cutting and flaring

Be sure to carry out deburring after cutting with a pipe cutter.
Insert flaring tool to make a flare.



	Pipe diameter φ	Size A (mm)
Liquid pipe	6.35mm(1/4")	0.8 ~1.5
Gas pipe	12.7mm(1/2")	1.2 ~2.0

Correct	Incorrect				
	Lean	Damage of flare	Crack	Partial	Too outside

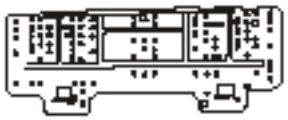
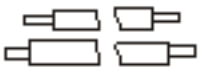
5.3 Installation Instructions of wall mounted type

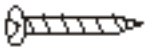
Installation Tools

1) Screw Driver 2) Hacksaw 3) Hole core drill 4) Hexagon wrench (5mm) 5) Spanner (14,17,19 and 24mm) 6) Torque wrench (17,22,24mm) 7) Pipe cutter 8) Flaring tool

Standard Accessories

The standard accessories includes: 1) Measuring type 2) Reamer 3) Refrigerant oil 4) Gas leakage detector or soap-and-water solution 5) Knife 6) Nipper

NO.	Accessory Parts	Number of articles	
		3 by 1	4 by 1
1	Remote controller	1	1
2	Remote controller holder	1	1
3	R-03 dry battery	1	1
4	 Mounting plate	1	1
5	Drain hose	6	8
6	A4x50 Steel nail,cement	24	32
7	 Main pipes	6	8
8	Ø25 Plastic cap Screw	18	24
9	Connecting cable	6	8
10	Pipe supporting plate	6	8
11	Drain-elbow	3	4
12	Hexagon wrench	1	1

NO.	Accessory Parts	Number of articles	
		3 by 1	4 by 1
13	Cover	3	4
14	Refrigerant oil	1	1
15	 Self-tapping screw	12	16

The installation of wall mounted type

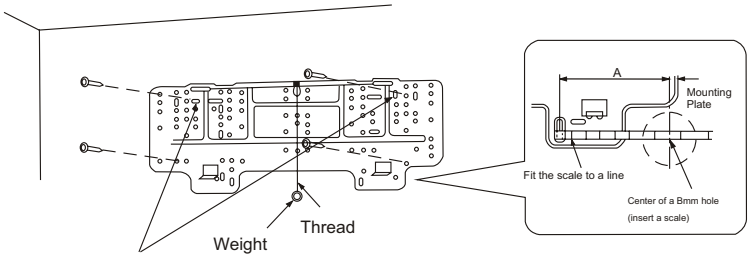
1 Fitting of the Mounting plate and Positioning of the Wall Hole

When the mounting plate is first fixed

1 Carry out,based on the neighboring pillars or lintels, a proper leveling for the plate to be fixed against the wall,then temporarily fasten the plate with one steel nail.

2 Make sure once more the proper level of the plate,by hanging a thread with a weight from the central top of the plate,then fasten securely the plate with the attachment steel nail.

3 Find the wall hole location A using a measuring tape.



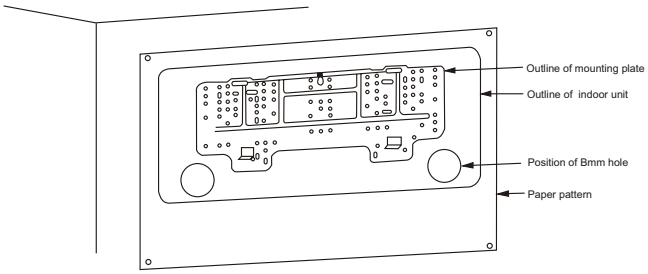
Holes for fixing the mounting plate

Fit the level line

When the paper pattern is used

1 Stick a paper pattern on the wall horizontally

2 Position by using the pattern then remove the pattern.

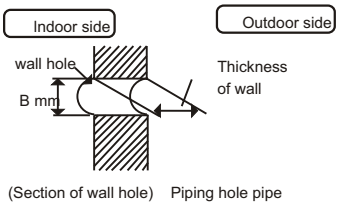


When the mounting plate is fixed to side bar and lintel

- Fix to side bar and lintel a mounting bar, which is separately sold,and then fasten the plate to the fixed mounting bar.
- Refer to the previous article," When the mounting plate is first fixed ",for the position of wall hole.

2 Making Hole on the Wall and Fitting the Piping Hole Cover

- Make a hole of 60mm in diameter, slightly descending to outside the wall
- Install piping hole cover and seal off with putty after installation.



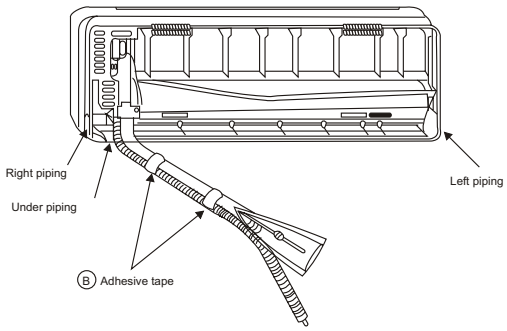
(Section of wall hole) Piping hole pipe

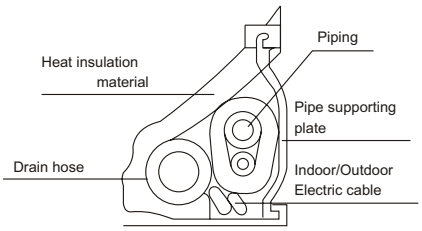
3 Installation of the Indoor Unit

Drawing of pipe

[Rear piping]

- Draw pipes and the drain hose, then fasten them and connecting electric cable for indoor and outdoor with the adhesive tape.
- Drain hose should be placed under.



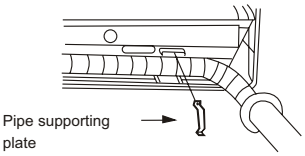


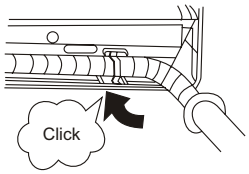
[Other direction piping]

- Cut away, the left, under or right side lid with a nipper or saw, according to the wall hole position, then bend the piping and fix it with piping support plate.
- Sometimes it becomes an easy installation by preconnecting the interconnect cable, then fasten piping and drain hose with it .

[Installation of piping support plate]

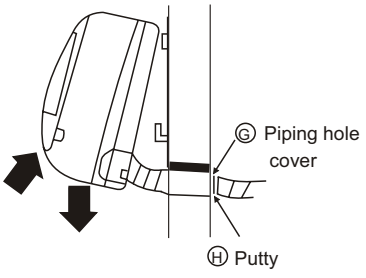
- Insert the plate from top, into the piping to be fixed.
- Push its buttom hard until you hear a clik.





Fixing the indoor unit body

- Hang surely the unit body onto the upper notches of the mounting plate.Move the body from side to side to verify its secure fixing.
- In order to fix the body onto the mounting plate, hold up the body aslant from the under side and then put it down perpendicularly.



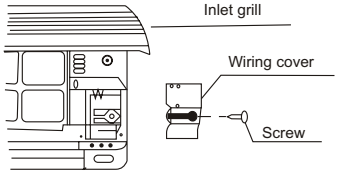
4 Connecting the Indoor/Outdoor Electric Cable

[Cautions]

1. Make sure it is unit A or unit B, when make wiring.
2. Unit to be connected to stop valve A on outdoor unit is unit A, while the one to be connected to stop valve B is unit B.
3. Refer to wiring diagram.

Removing the wiring cover

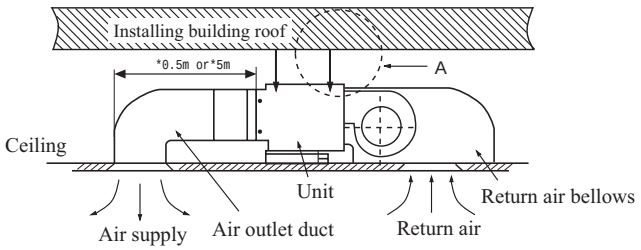
Open the inlet grill ,then remove one screw of the cover.



5.4 Installation of ceiling concealed type

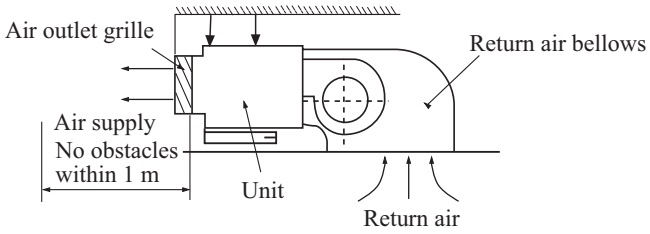
- When installing the ceiling concealed type indoor unit, a specially designed return air bellows shall be installed, as shown in Figure 3, Figure 4.

Figure 3



Detail A

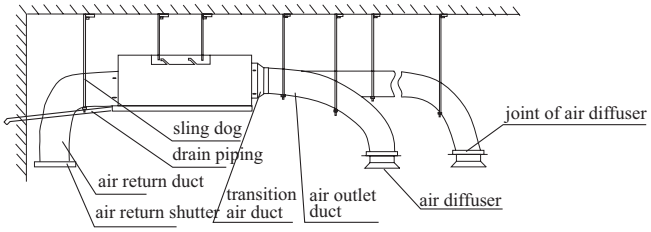
Figure 4



- Each air return and supply duct should fix to the floor precast slab by using an iron stand. Use glue to seal the interface closely. Recommend the distance between the air return duct and the wall is more than 150mm.

- The distance between air duct outlet and air conditioner outlet is according to the length of actually installed air duct and in service behavior of the static pressure terminal: Installation sketch map for long and short air duct is showed below, when connect to short air duct, using low static terminal (terminal color is write), the distance between air duct outlet and air conditioner outlet is no more than 0.5m; when connect to long air duct, using middle static terminal (terminal color is red), the distance between air duct outlet and air conditioner outlet could be within 5m at this point.

Figure 5



- Drain piping of condensed water should keep a downhill grade of 1% or more. Use insulating pipe to cover the drain piping of condensed water to keep warmth.

- As figure shown, suspend and install the unit.

Figure 6

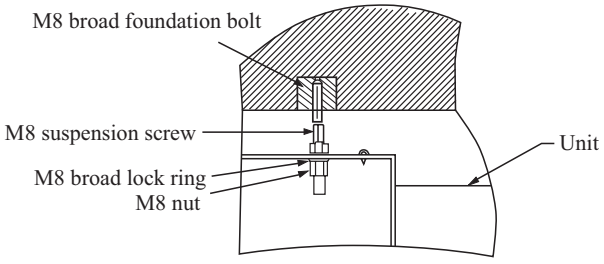


Figure 5

Installation for air duct of indoor unit

1. Installation for air supply duct

- This type of unit uses circular air duct with its caliber of 180mm.
- An additional transitive air duct is necessary for the circular air duct to connect to the air supply inlet. It should be also connected to its respective air diffuser separately. See Fig.1. Adjust the wind speed of each air diffuser outlet to keep in line on the whole, so as to meet a demand of the air conditioner in the room.

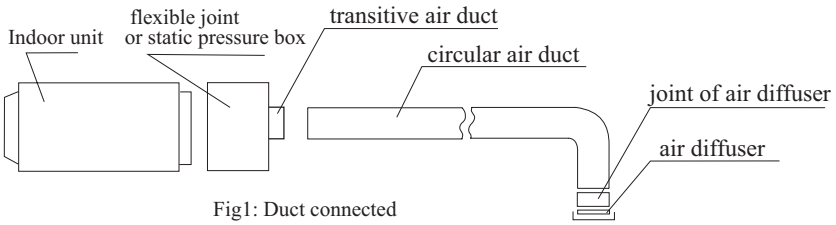


Fig1: Duct connected

2. Installation for air return duct

- Use rivets to connect the air return duct to the air return inlet of the indoor unit. The other end connects to the air return shutter. as shown in Fig.2.

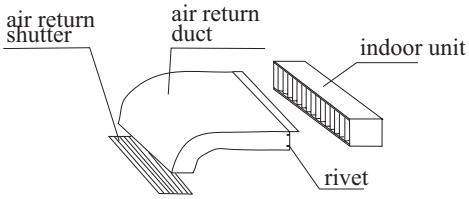
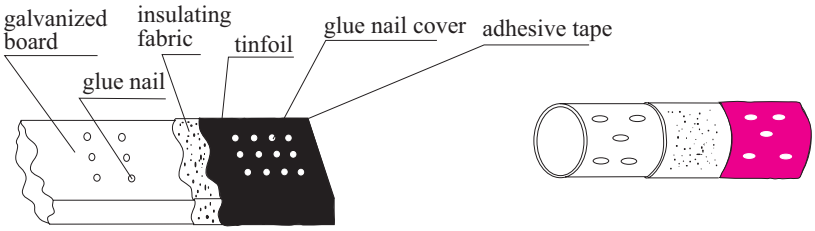


Fig2: Duct return connected

3. Air duct insulation

- Insulation layer is needed for air supply and return duct. First, paste a glue nail to the air duct, and then attach the insulation cotton that has a tinfoil layer and use the glue nail cover to fix. Finally, seal the air duct interface with tinfoil adhesive tape closely. as shown in Fig3.

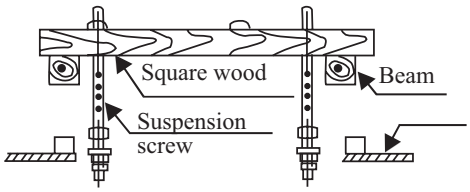


Installing the suspension screw:

Use M8 or M10 suspension screws (4, prepared in the field) (when the suspension screw height exceeds 0.9 m, M10 size is the only choice). These screws shall be installed as follows with space adapting to air conditioner overall dimensions according to the original building structures.

Wooden structure

A square wood shall be supported by the beams and then set the suspension screws.

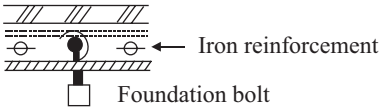


New concrete slab

To set with embedded parts, foundation bolts etc.

Knife embedded part

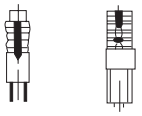
Guide plate embedded part



Pipe suspension foundation bolt

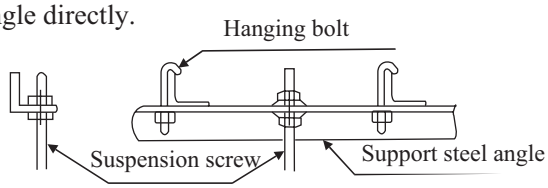
Original concrete slab

Use hole hinge, hole plunger or hole bolt.



Steel reinforcement structure

Use steel angle or new support steel angle directly.



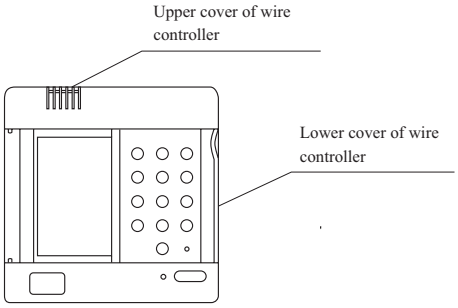
Hanging of the indoor unit

- Fasten the nut on the suspension screw and then hang the suspension screw in the T slot of the suspension part of the unit.
- Aided with a level meter, adjust level of the unit within 5 mm.

1. Remove upper cover of wire controller

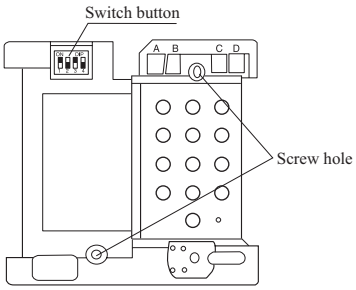
Remove upper part of wire controller by press.

PCB is mounted on lower part of wire controller, be careful not to damage it.



2. Install the wired remote controller

Please drill two holes on the wall according to the back cover screw hole position of the wire remote controller, then strike the wood block to the holes respectively, then align the 2 screw hole of the wire controller back cover to the wood block, fasten the wire reote controller to the wall use wood screws.



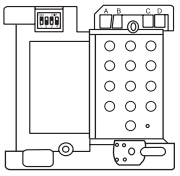
3. Switch setting

The switchs setting as follows:1.ON 2.OFF 3.ON 4.OFF

Note

Try as far as possible a flat surface for installation. Don't use excessive force when tightening screws, or lower part might got deformed.

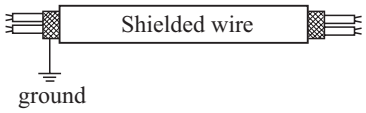
4. Connecting method as the following chart



Back cover of the wire controller

No	Symbol	colour	contents
1	A	White or Green	12V
2	B	Red	Gnd
3	C	Yellow	COM
4	D	——	——

- Use shielede wires for telecommunication between wire controller and indoor unit; indoor unit and outdoor unit. Ground the shield on one side.
  Otherwise misoperation because of noise may occur.
- Signal wire is self-provided by user.



5. Replace the upper cover of wire controller

Be careful not to hold down the wiring.

Hint 1. Power supply switch and signal wire should be prepaired by the user.

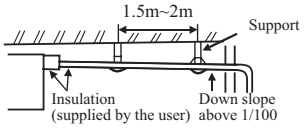
2. Don't touch PCB with hand.

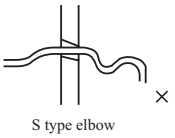
⚠Caution

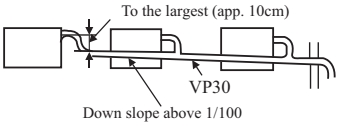
- In order to drain water normally, the drain pipe shall be processed as specified in the installation manual and shall be thermal insulated to avoid dew generation. Improper hose connection may cause indoor water leakage.

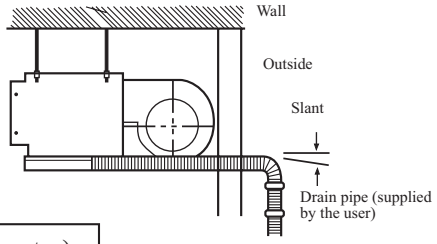
Requirements

- The indoor drain pipe shall be thermal insulated.
- The connection part between the drain pipe and the indoor unit shall be insulated so as to prevent dew generation.
- The drain pipe shall be slant downwards (greater than 1/100). The middle part shall not be of S type elbow, otherwise abnormal sound will be produced.
- The horizontal length of the drain pipe shall be less than 20 m. In case of long pipe, suppo-rts shall be provided every 1.5 ñ 2m to prevent wavy form.
- Central piping shall be laid out according to the following figure.
- Take care not to apply external force onto the drain pipe connection part.









Pipe and insulation material

Pipe	Rigid PVC pipe VP31.5mm (internal diameter)
Insulation	Foamed PE with thickness above 7mm

Hose

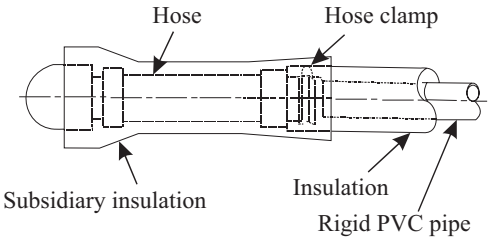
Drain pipe size: ÿ 19.05mm² (3/4") PVC pipe

The hose is used for adjusting the off-center and angle of the rigid PVC pipe.

- Directly stretch the hose to install without making any deformation.
- The soft end of the hose must be fastened with a hose clamp.
- Please apply the hose on horizontal part

sulation treatment:

- Wrap the hose and its clamp until to the indoor unit without any clearance with insulating material, as shown in the figure.



Drain confirmation

During trial run, check that there is no leakage at the pipe connection part during water draining even in winter.

Allowable pipe length and drop

These parameters differ according to the outdoor unit. See the instruction manual attached with the outdoor unit for details.

Pipe material and size

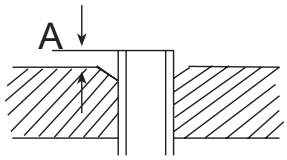
Pipe material	Phosphorus deoxidized copper seamless pipe (TP_2M) for air conditioner			
Model		AE122XCBAA	AE142XCBAA	AE212XCBAA
Pipe size (mm)	Gas side	12.7	12.7	15.88
	Liquid side	6.35	6.35	9.52

Supplementary refrigerant

The refrigerant supplementation shall be as specified in the installation instructions attached with the outdoor unit. The added refrigerant shall be R22.
The adding procedure shall be aided with a measuring meter for a specified amount of supplemented refrigerant

Requirement

Overfilling or underfilling of refrigerant will cause compressor fault. The amount of the added refrigerant shall be as specified in the instructions.



Pipe expander

Connection of refrigerant pipe

Conduct flared connection work to connect all refrigerant pipes.

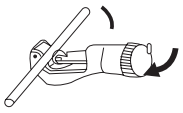
Pipe cutting and expanding

If the pipe is too long or the flare is damaged, it needs to be cut or expanded.

Pipe expansion dimensions as follows:

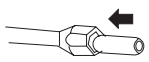
Pipe diameter ÿ	Size A (mm)
6.35 mm (1/4")	0.8 ~ 1.5
9.52 mm (3/8")	1.0 ~ 1.8
12.7 mm (1/2")	1.2 ~ 2.0
15.88 mm (5/8")	1.4 ~2.2

1. Pipe cutting

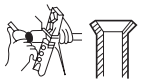


2. Removing burrs

3.Insertion nut



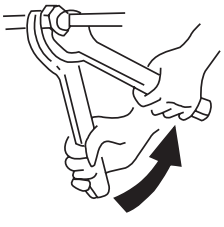
4. Pipe expansion



Correct	Incorrect				
	Slope	Damage	Bur	Partial	Overlong

- The connection of indoor unit pipes must use double spanners.
- The installing torque shall be as given in the following table.

Connecting pipe O.D.(mm)	Installing torque (N-m)	Increased installing torque (N-m)
6.35	11.8 (1.2kgf-m)	13.7 (1.4 kgf-m)
9.52	24.5 (2.5kgf-m)	29.4 (3.0 kgf-m)
12.70	49.0 (5.0 kgf-m)	53.9 (5.5 kgf-m)
15.88	78.4 (8.0 kgf-m)	98.0 (10.0 kgf-m)


Double-spanner operation

Installation Procedure

Vacuum pumping

With a vacuum pump, create vacuum from the stop valve of the outdoor unit.

- Emptying with refrigerant sealed in the outdoor unit is absolutely forbidden.

Open all valves

Open all the valves on the outdoor unit.

Gas leakage detection

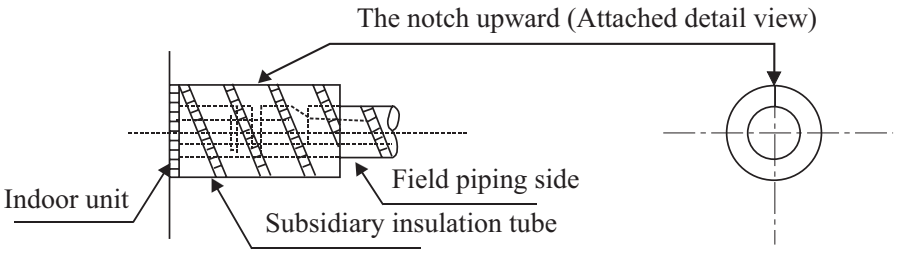
Check with a leakage detector or soap water that if there is gas leakage at the pipe connections and bonnets.

Insulation treatment

Conduct insulation treatment on both the gas side and liquid side of pipes respectively.

During cooling operation, both the liquid and gas sides are cold and thus shall be insulated so as to avoid dew generation.

- The insulating material at gas side shall be resistant to a temperature above 120*.
- The indoor unit pipe connection part shall be insulated.



Installation Procedure

⚠Warning

- The electric wiring work shall be conducted by qualified electricians according to the installation instructions. A separate power circuit shall be used. Insufficient power cord amperage or improper wiring will cause danger of electric shock or fire.
- During wiring connection, the power cord shall be of the specified cable and reliably fastened so that external forces applied to the cable wouldnt transfer to the terminals. Improper connection or fastening will cause danger of heating, fire etc.The power cord must be fitted with a grounding wire.
- Grounding shall be made as specified. Unreliable grounding will cause electric shock. The grounding wire shall not be connected to the gas pipeline, water pipeline, thunder arrestor and telephone wire

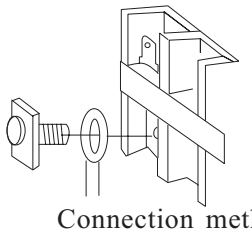
⚠Caution

- A current leakage breaker shall be installed, otherwise it electric shock would happen easily.
- If the power cord is damaged, it must be replaced by the manufacturer or its service center or similar personnel to avoid risks. The power supply to the indoor unit shall be laid in complying with the operational instruction manual.
- The electric wiring shall avoid contacting with the high temperature part of the piping so as to prevent the cable insulation melts and cause dangers.
- After connected on the terminal block, the wires shall be bent to U form and then fastened with wire clip.
- The control wiring and refrigerant piping may be laid and fastened together.
- Before completion of vacuum pumping of the refrigerant pipe system, do not electrify the indoor unit.
- The power cord of the indoor unit and connection wiring between indoor and outdoor units shall be laid out according to the operational instruction manual of the indoor unit.
- The connection of the power cord shall comply with the local regulations.
- The power supply wiring connection should meet the local regulation.

Wiring connection method : (the wiring diagram is attached inside the machine)

1) Ring terminal connection method

If there is a ring at the end of the connection wire, the wire connection method is as shown in the right figure. Remove the terminal screw and insert it through the ring at the connection wire end, then connect to the terminal board and fasten the screw.



Connection method for ring terminal

2) Straight terminal connection method

If there isnt a ring at the end of the connection wire, the connection method shall be: loosen the terminal screw, insert the connection wire end completely into the terminal board and fasten the screw. Pull the connection wire outwards slightly to confirm it is clamped tightly.

3) Clamping method of the connection wire

After wire connection is finished, the connection wire must be pressed tightly with wire clips, which shall apply to the outer sheath of the connection wire.

Wire connection for built-in indoor unit

- Insert from outside the connection wire and signal transmission wire through the wall hole with pipeline already arranged.
- Pull out the front ends of connection wire and signal wire and make a circle on the signal wire.
- Connect the connection wire according to the connection method and indoor and outdoor wiring diagram.
- Pull the connecting conductor outwards slightly to confirm it is clamped tightly.
- Connect the plug for connecting the signal wire with the plug of the signal wire connected from the indoor unit.
- After wire connection is finished, install wire clips using the same method for connection wire clamping.

  Note: When connecting the indoor unit and the outdoor unit, please do connect the wires with the same color terminals.

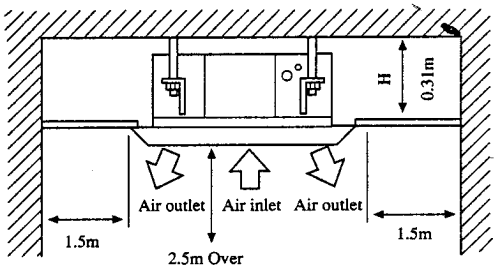
Notes:

- Before connecting the conductors between indoor unit and outdoor unit, check for the number on the indoor and outdoor units connecting terminals. Connect the terminals with the same color and number with a wire.
- Wrong connection would damage the controller of the air conditioner or the machine couldnt operate.
- Do not connect the connection wire and signal wire with the same cable. They shall be connected respectively to ensure system normal operation.

5.5 Installation of cassette type (AB122~AB142XCBAA)

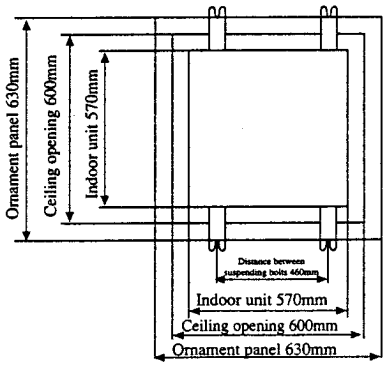
I Selection of Installation Place

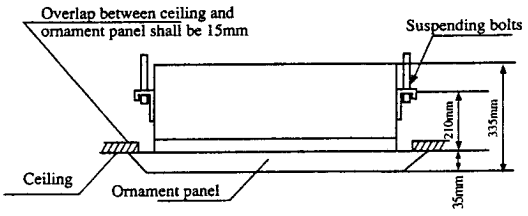
(1) Place above the ceiling where have enough space to arrange the unit.
(2) Place where the drainage pipe can be arranged well.
(3) Place where inlet and outlet air of indoor and outdoor unit will not be blocked.
(4) Do not expose the unit to the place with heavy oil or moisture (e.g. kitchen and workshop).
(5) Do not set the unit in the place where destructive gas (such as sulfuric acid gas) or pungent gas (thinner and gasoline) concentrates and retains.
(6) Place strong enough to support the unit weight.
(7) No expensive articles such as television and piano below indoor unit.
(8) Enough space for maintenance.
(9) Place more than 1m away from television and radio to avoid disturbing television and radio.
(10) Easy for maintenance.



II Installation Preparation

(1) Position of ceiling opening between unit and suspending bolt (front view of unit).



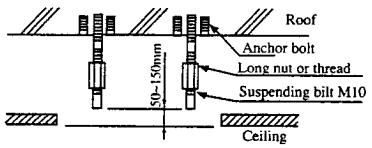


(2) Prepare all piping (refrigerant, water drainage) and wires (connection wire of remote controller, indoor unit connection wires) to the indoor unit before installation in order to connect indoor unit immediately after installation.

(3) Install a suspending bolt

To support the unit weight, anchor bolt should be used in the case of already exists ceiling. For new ceiling, use flush-in type bolt, built-in type bolt or parts prepared in the field.

Before going on installing, adjust space to ceiling.



Note: All the above mentioned parts shall be prepared in feild, the diameter of suspending bolt is M10

<Installation Example>

Installation of indoor unit

In case of no ceiling

Install unit temporally

Put suspending bracket on the suspending bolt to hang the unit up. Be sure to use nut and washer at both end of the bracket to secure it firmly.

After installation on the ceiling

(1) Adjust unit to its right position. (Refer to preparation for installation- (1))

(2) Check that unit is horizontal.

- Water pump and floating switch is installed inside indoor unit, check four corners of the unit for its level using horizontal comparator or PVC tube with water. (If unit is tilting against the direction of water drainage, problem may occur on floating switch, causing water leakage.)

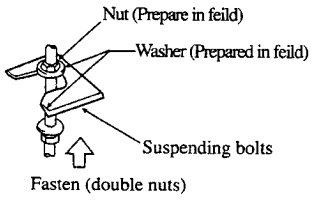
In the case of ceiling already exists

(1) Install unit temporally

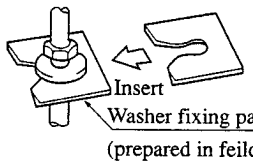
- Put suspending bracket on the suspending bolt to hang the unit up. Be sure to use nut and washer at both end of the bracket to secure it firmly.

(2) Adjust the height and position of the unit.

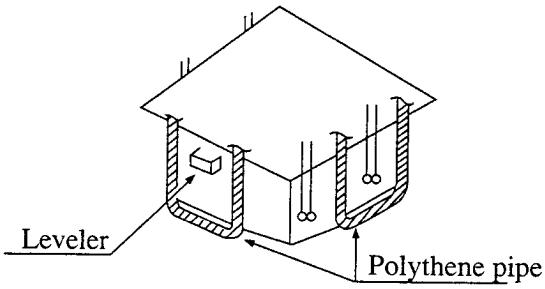
(3) Proceed with procedure (4) of "In the case of no ceiling".



[secure the suspending bracket firmly]



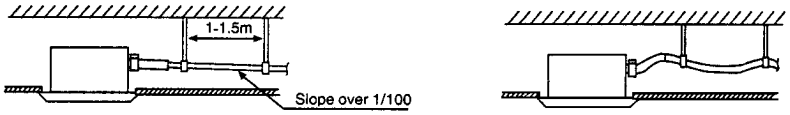
secure the washer firmly]



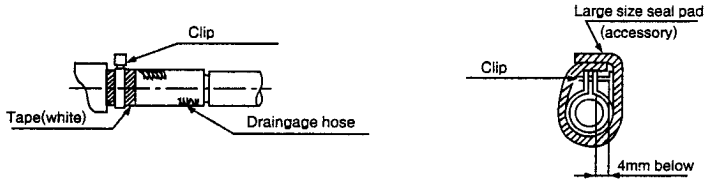
III Installation of Water Drainage Pipe

(1) Install water drainage pipe

- Pipe diameter shall be equal or larger than that of connecting pipe. (Pipe of polythene; size: 25mm; O.D: 32mm).
- Drainpipe should be short, with a downward slope at least 1/100 to prevent air bag from forming.
- If downward slope of drainpipe cannot be made, lifting pipe shall be installed.
- Keep a distance of 1-1.5m between suspending bolts, to make water hose straight.

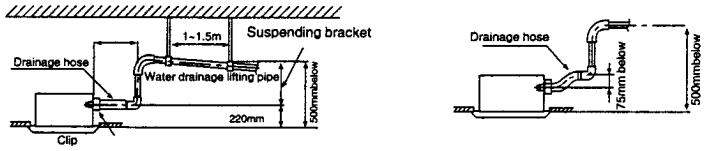


- Use the drainage hose and clip provided with unit.
  Insert water pipe into water plug until it reaches the white tape.
  Tighten the clip until head of the screw is less than 4mm from hose.
- Wind the drainage hose to the clip using seal pad for heat insulation.
- Insulate drainage hose in the room.



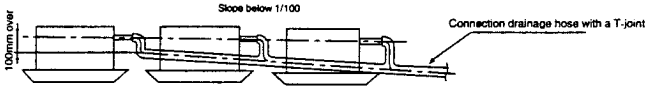
Cautions for the water drainage lifting pipe

- Installation height of water drainage lifting pipe shall be less than 280mm
- There should be a right angle with unit, 300mm from unit.



<Note>

- The slope of water drainage hose shall be within 75mm, make the drainage plug not to bear excessive force.
- If several water hoses join together, do as per following procedures.



Specifications of the selected drainage hoses shall meet the requirements for the unit running.

IV Installation of Ornament Panel

Install ornament panel on indoor unit

(1) Check whether indoor unit is horizontal with leveler or polythene pipe filled with water, and check that the dimension of the ceiling opening is correct. Take off the level gauge before install the ornament panel.

(2) Fasten the screws to make the height difference between the two sides of indoor unit less than 5mm.

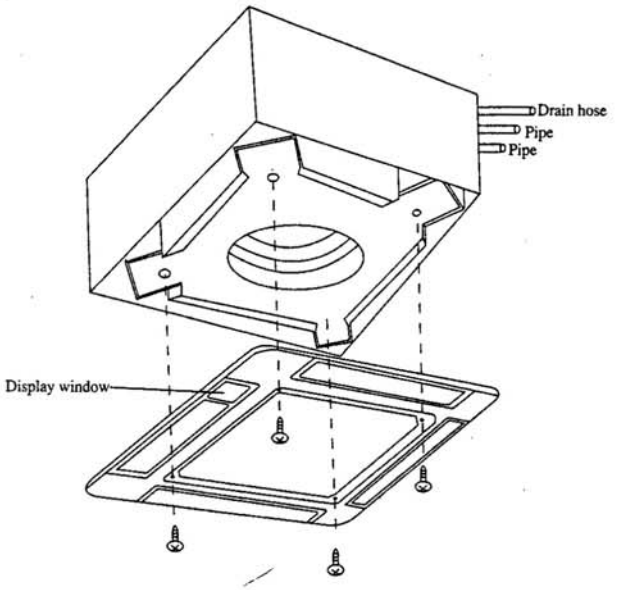
(3) First fix it with screws temporally.

(4) Fasten the two temporally fixing screws and other two, and tighten the four screws.

(5) Connect the wires of synchro-motor.

(6) Connect the wire of signal.

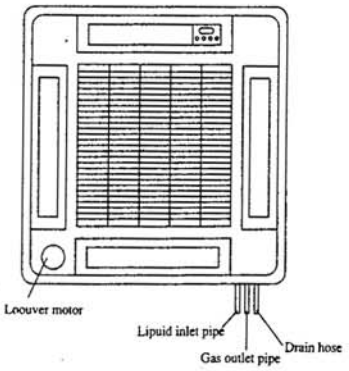
(7) If no response of remote controller, check whether the wiring is correct, restart remote controller 10seconds after shut off power supply.



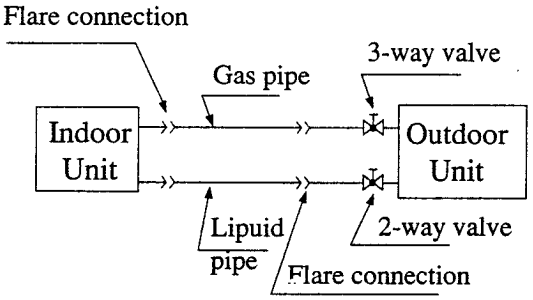
Limits of panel board installation

(1) Install the panel board in the direction shown in the figure.

(2) The incorrect direction will result in water leakage, meanwhile swing and signal receiving are displayed that cannot be connected.



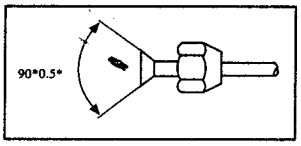
Piping Connection



(1) Dimension of connecting pipe

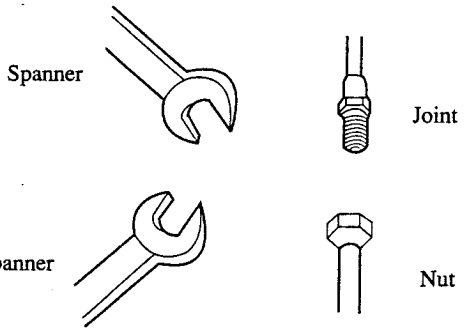
Gas pipe	Φ 12.7mm
Liquid pipe	Φ 6.35mm

- Fit the nut on and fasten.



(2) The maximum length and drop height of connecting pipe

- The maximum length is 10m.
- The maximum drop height is 5m
- To ensure the efficiency, pipes shall be as short as possible.



Cautions for piping connection

- Do not twist or deform the connecting pipe.
- Do not mix dusts.
- The bending radius shall be as large as possible.
- Both gas pipe and liquid pipe shall be heat insulation.
- No leakage in the flare.

Diameter of Pipe	Tighten Torque
Liquid Pipe 6.35mm	18 N.m
Gas Pipe 12.7mm	50 N.m

(3) Piping connection

- Connecting method

Smear refrigerant oil on the joints of piping and flare.
The bending radius shall be as large as possible.
Align the pipe center when fastening, and tighten the nut, as shown in the figure.
Pay attention to not mix foreign matters such as sands in.

If not aligned, tighten the nut by force will damage the nut that result in gas leakage.

5.6 Installation of cassette type (AB212XCBAA)

1.BEFORE INSTALLATION **Do not discard any accessories until installation completed**

- Determine the best way to carry the unit to its installation place.
- Do not remove the packing until the unit reaches the installation place.

2.SELECTION OF INSTALLATION POSITION

(1) Installation place shall meet the following and be agreed with the customers/user:

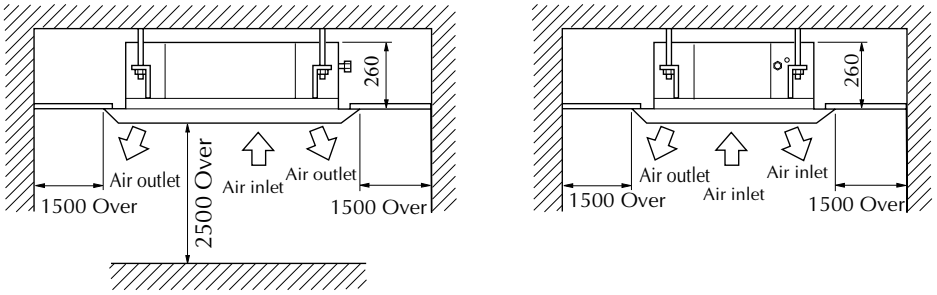
- Place where proper air flow can be ensured.
- do not restrict air flow.
- Water drainage is smooth.
- Mounting point strong enough to support unit weight.
- Position where inclination is not evident on ceiling.
- There is enough space for maintenance.
- Indoor and outdoor unit piping length is within limit. (See page 35)
- Indoor and outdoor unit, power cable, inter unit cable are at least 1 m away fromT.V. radio. This is necessary to avoid picture disturbance and noise.

(2) Ceiling height

The Indoor unit can be installed in a ceiling of 2.5-3m in height. (Refer to section 9. Setting and Installation of ornament panel.)

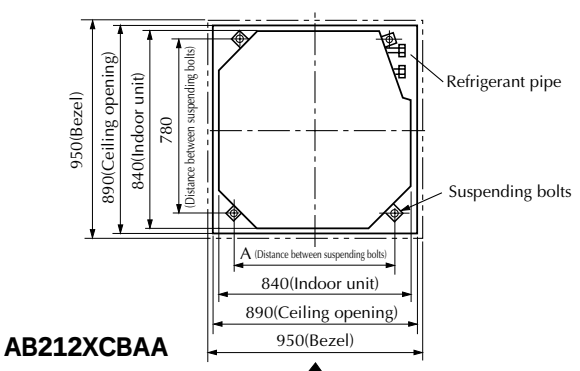
(3) Install suspending bolt. Check if the installation is strong enough to hold the unit weight. Take necessary measures in case it is not safe. (Distance between holes are marked on the paper pattern, Refer to paper pattern for positions needed to be reinforced)

Installation space

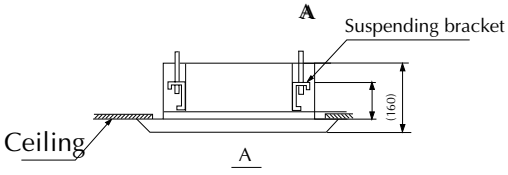


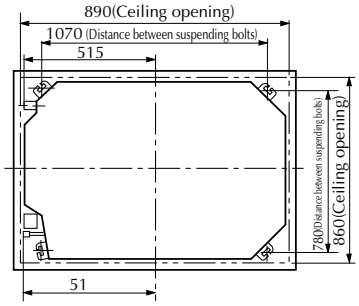
3. PREPARATION FOR INSTALLATION

(1) Position of ceiling opening between unit and suspending bolt.



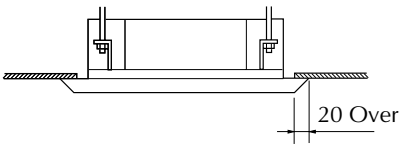
AB212XCBAA





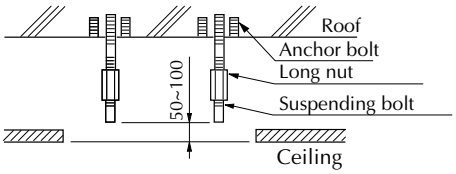
AB36-52

Note:
Dimension of ceiling opening marked with * can be as large as 910mm, but the matching part of ceiling with bezel panel shall be over 20mm.



(2) Cut an opening in the ceiling for installation if necessary. (when ceiling already exists.)
● Refer to paper pattern for dimension of ceiling hole.

(3) Install suspention bolts.
(Use M10 bolt)
To support the unit weight, anchor bolts shall be used in the case of already existing ceiling. For new ceiling, use built-in type bolt or parts available on the market.
Before installing adjust space between ceiling.



Installation example

Note: All the above mentioned parts are to be supplied by the installer.

4. INSTALLATION OF INDOOR UNIT

In the case of new ceiling

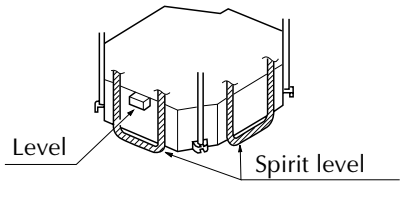
(1) Install unit temporarily
● Put suspending bracket on the suspending bolt. Be sure to use nut and washer at both ends of the bracket.
(2) ● As for the dimensions of ceiling hole, see paper pattern.
● Center of the hole is marked on the paper pattern.
● Center of the unit is marked on the card in the unit and on the paper pattern.
● Mount paper pattern onto unit using 3 screws. Fix the corner of the drain pan at piping outlet

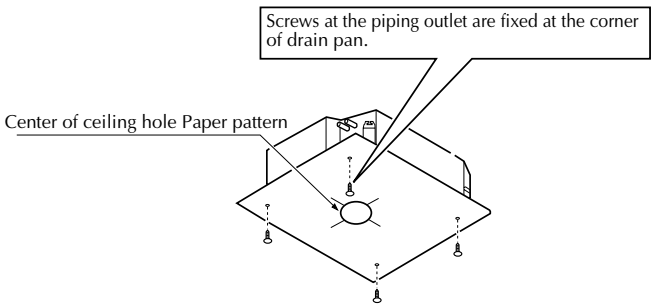
After installation on the ceiling

(3) Adjust unit to its correct position. (Refer to preparation for the installation-(1))
(4) Check unit's horizontal level.
● Water pump and floating switch is installed inside indoor unit, check four corners of the unit for its level using a spirit level. (If unit is tilting against the direction of water drainage, problems may occur with the floating switch, causing water leakage.)
(5) Remove the washer mounting, and tighten the nut above.
(6) Remove the paper pattern.

In the case of existing ceiling

(1) Install unit temporally
● Put suspending bracket on the suspending bolt. Be sure to use nut and washer at both ends of the bracket. Fix the bracket firmly.
(2) Adjust the height and position of the unit. (Refer to preparation for the installation (1)).
(3) Proceed with **3** and **4** of "In the case of new ceiling".





[Fix the paper pattern]

5. REFRIGERANT PIPING

- The Outdoor unit is precharged with R407c refrigerant.
- Refer to Fig.1, when connecting and removing piping from unit.
- For the size of the flare nut, please refer to Table 1.
- Apply refrigerant oil at both inside and outside of flare nut. Tighten by hand 3-4 turns then tighten as specified.
- Use torque specified in Table 1. (Too much force may damage the flare nut, causing gas leakage).
- Check piping joints for gas leakage. Insulate piping as shown in Fig. below.
- Cover joint of gas piping and insulator with seal.

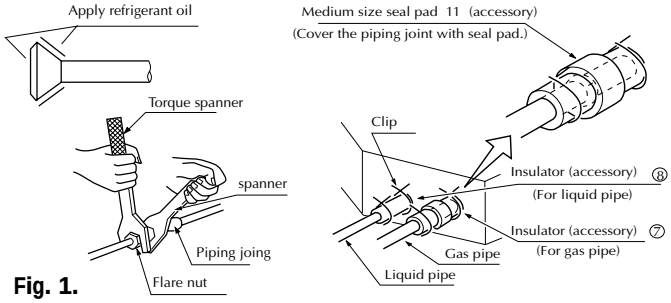
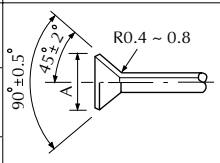


Fig. 1.

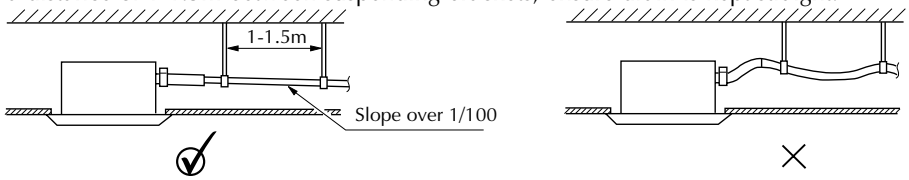
Table 1

Pipe size	Tighten torque	A(mm)	Flare shape
Φ 9.52 (3/8")	3270~3990N·cm (333~407kgf·cm)	12.0~12.4	
Φ15.88 (5/8")	6180~7540N·cm (630~770kgf·cm)	18.6~19.0	
Φ19.05 (3/4")	9720~11860N·cm (990~1210kgf·cm)	22.9~23.3	

6. Installation of water drainage pipe if condensation pump is not being fitted

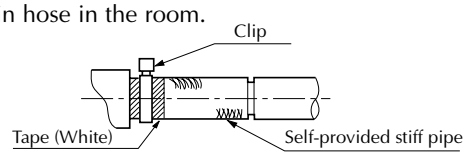
(1) Install water drainage pipe

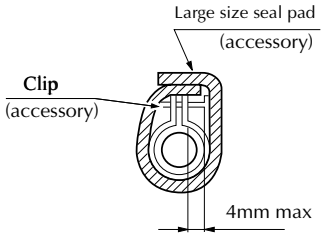
- Pipe dia, shall be equal or larger than that of unit piping.(pipe of polyethylene; size: 25mm; O.D:32mm)
- Drain pipe should be short, with a downward slope at least 1/100 to prevent air blockage from occuring.
- If downward slope can not be made, take other measures to lift it up.
- Keep a distance of 1-1.5m between suspending brackets, ensure drain is kept straight.



- Use the self-provided stiff pipe and clip with unit. Insert water pipe into water plug until it reaches the white tape. Tighten the clip until head of the screw is less than 4mm from hose.
- Wind the drain hose to the clip using seal pad.

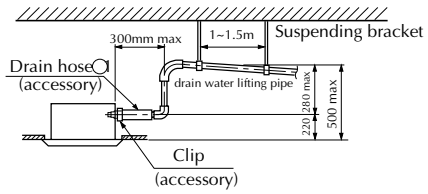
Insulate drain hose in the room.

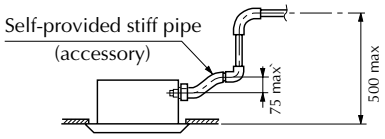




Cautions for the drain water lifting pipe

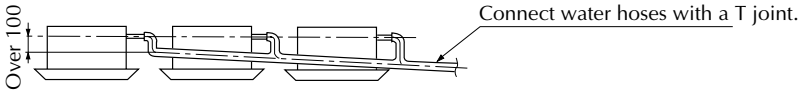
- Installation height shall be less than 280mm.
- There should be a right angle within, 300mm from unit.





Note

- The slope of water drain hose (1) shall be within 75mm, don't apply too much force on it.
- If several water hoses join together, do as per following proceedures.



Specifications of the water hoses shall meet the requirements for the unit running.

(2) Check if water drainage is smooth after installation.

● Charge, through air outlet or inspecting hole, 1200ccl water to see water drainage.

When wiring is not complete

● Remove cover of control box, make a short connection on "CHECK" terminal of the indoor unit, which is on the upper part of indoor unit PCB. Connect 1ph power supply to terminal 1 and 2 on terminal block.

● Note, in this operation, fan will be running.

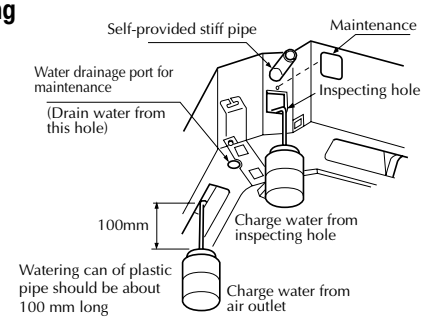
● Upon confirmation of a smooth water drainage, be sure to isolate power supply and remove short connection of "CHECK" terminal.

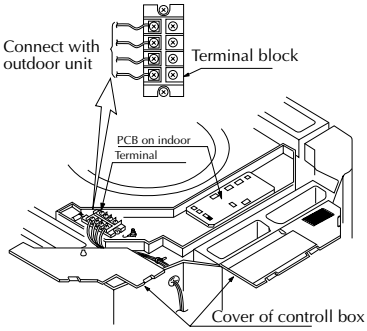
● See pages 35 for full wiring diagrams.

After wiring

● Check water drainage in cooling operation. See also test run.

Drainage testing


Self-provided stiff pipe
Maintenance
Water drainage port for maintenance
Inspecting hole
(Drain water from this hole)
100mm
Charge water from inspecting hole
Watering can of plastic pipe should be about 100 mm long
Charge water from air outlet



7. WIRING

● When wiring, please refer to wiring diagram (page 35).

● All wiring work must be carried out by qualified electrician and in accordance with current regulations.

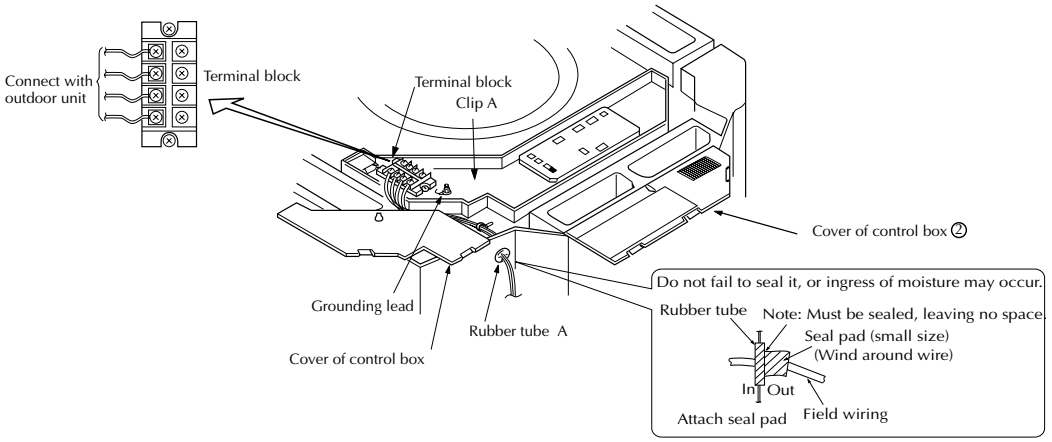
● A circuit breaker must be installed, which will isolate the power supply to the complete system.

● Connecting of unit

Remove cover of switch box ①, position wires inside rubber tube A, then, fix the cable in position by tightening clamp A. Connect wires to the terminal block inside ensuring the correct cables are used.

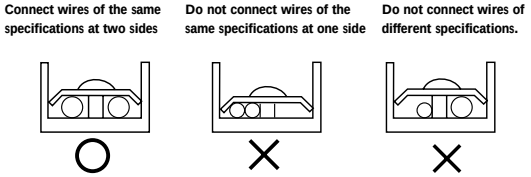
● Cover cables to prevent damp/moisture.

● After connecting, replace control box cover ① and ②.



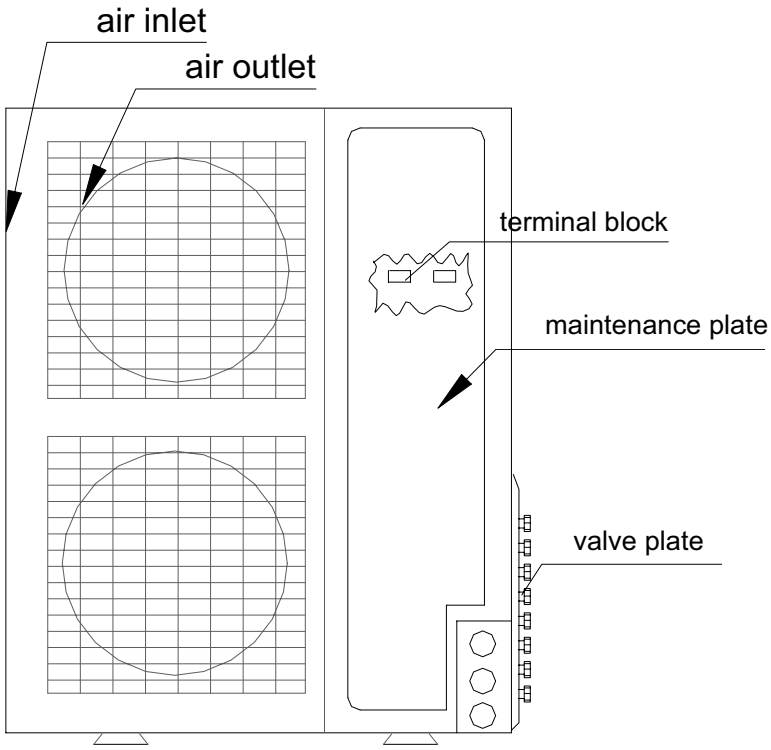
WARNING

Observe the following when connecting power supply terminal block:
Do not connect wires of different specifications to the same terminal block.
(Loose wire may cause overheating of circuit)
Connect wires of same specifications as shown in right Fig.

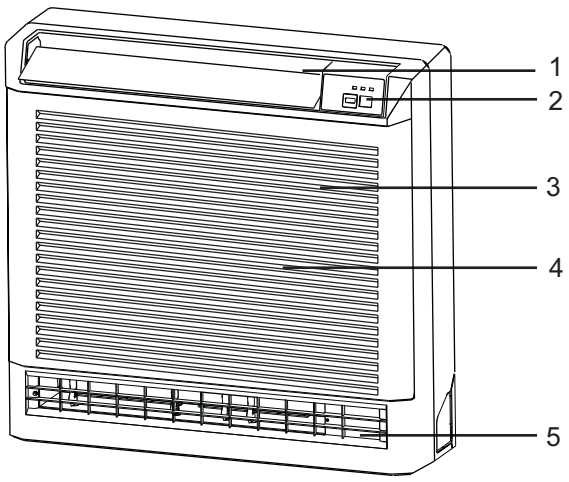

Connect wires of the same specifications at two sides
Do not connect wires of the same specifications at one side
Do not connect wires of different specifications.
○
×
×

6. Parts and functions

6.1 Outdoor unit

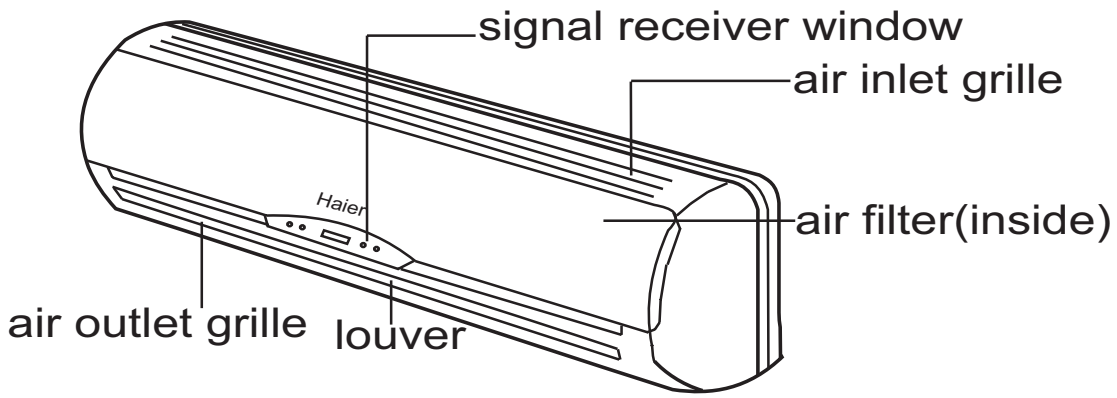


6.2 Indoor unit

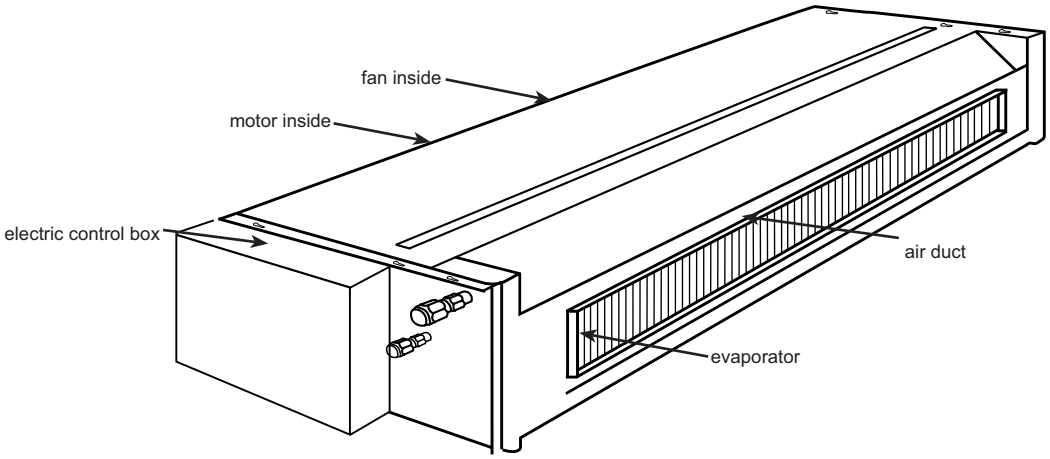


1.OUTLET
2.CONTROL PANEL
3.INLET
4.FILTER (inside)
5.OUTLET

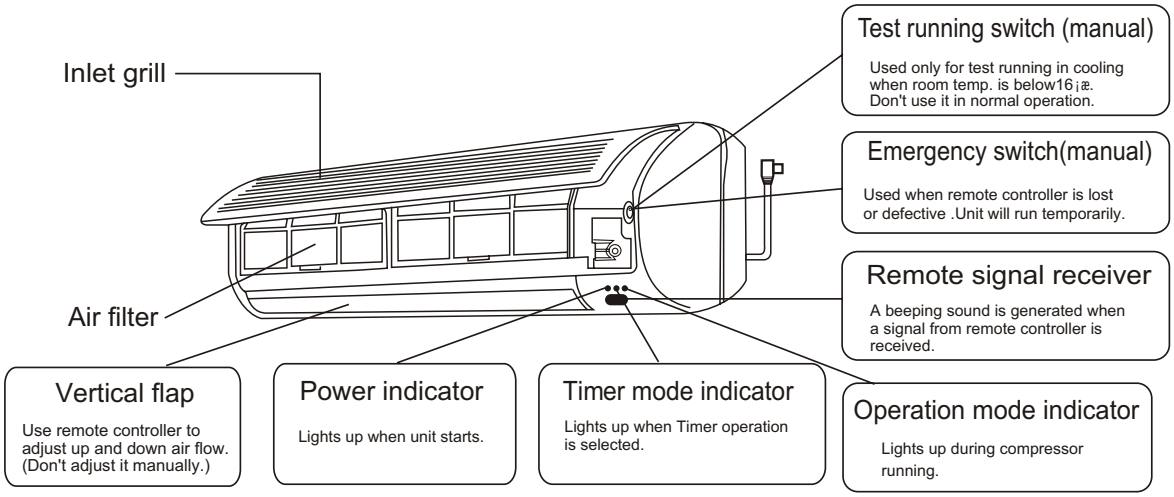
wall mounted type Indoor unit:AS122XCBAA, AS142XCBAA



ceiling concealed type Indoor unit



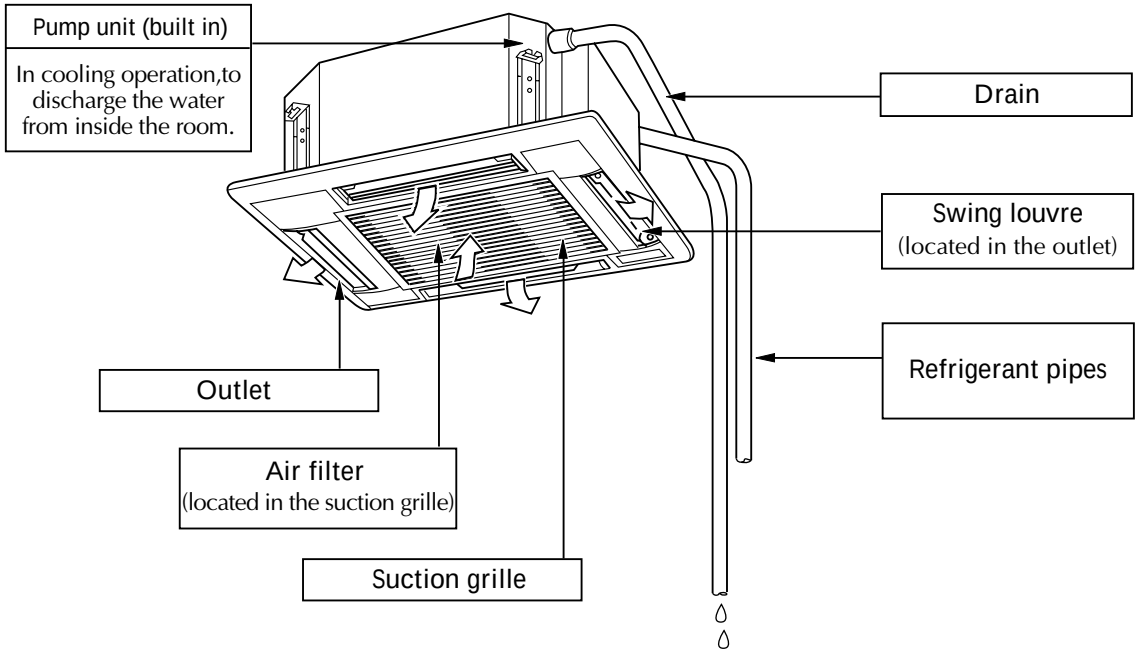
AS092XABAA, AS122XABAA


Inlet grill
Air filter
Test running switch (manual)
Used only for test running in cooling when room temp. is below16¡æ. Don't use it in normal operation.
Emergency switch(manual)
Used when remote controller is lost or defective .Unit will run temporarily.
Remote signal receiver
A beeping sound is generated when a signal from remote controller is received.
Vertical flap
Use remote controller to adjust up and down air flow. (Don't adjust it manually.)
Power indicator
Lights up when unit starts.
Timer mode indicator
Lights up when Timer operation is selected.
Operation mode indicator
Lights up during compressor running.

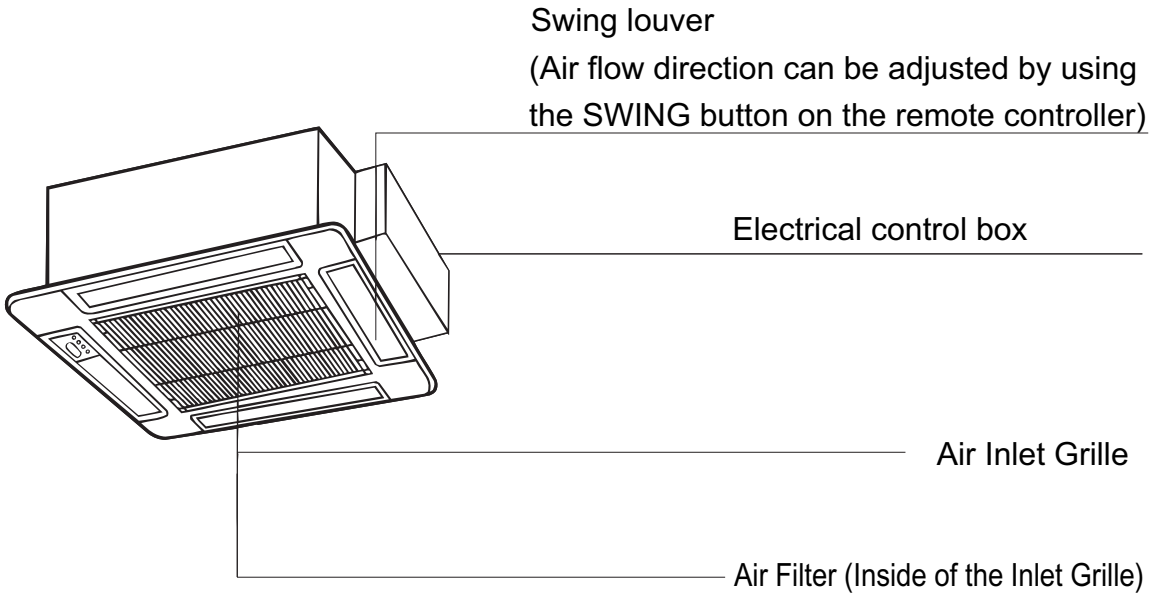
For multi-split type, the power plug is on the outdoor unit .

Cassette type Indoor unit

AB212XCBAA

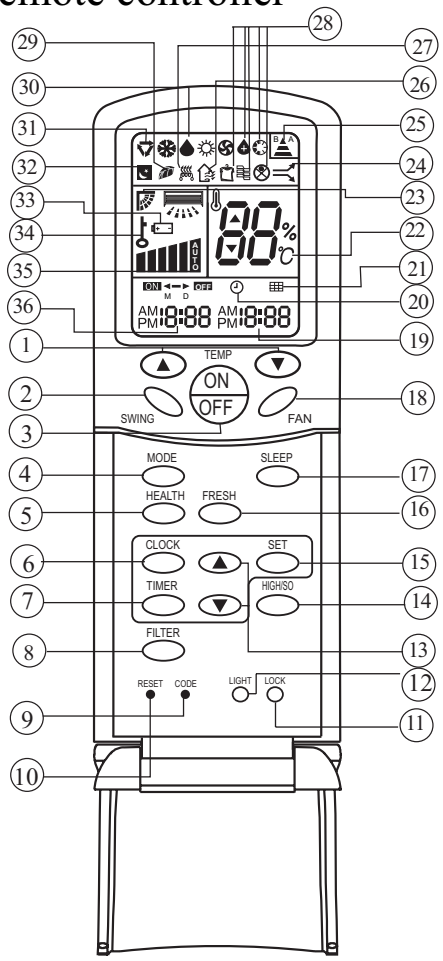


AB122\AB142XCBAA


Swing louver
(Air flow direction can be adjusted by using the SWING button on the remote controller)
Electrical control box
Air Inlet Grille
Air Filter (Inside of the Inlet Grille)

7.Remote controller functions

Remote controller



1.TEMP Setting Button

(Used to set temperature. Setting ranges: 16℃ to 30℃)

In Up/Down function, for controlling up and down filter.

2.SWING Button

If you press this button once, auto swing will be activated.

If you press this button again, the louver will fix in the present position.

3.Power ON/OFF Button

Used for unit start and stop

After power on, the LCD of remote controller will display the previous operation state (except for TIMER,SLEEP and SWING state).

4.Operation MODE

Used to select operation mode.

Every time you press MODE button, operation mode changes according to following sequence:

AUTO → COOL → DRY → HEAT → FAN

5.HEALTH Button

Used to set health mode, if the unit has the negative ion function and oxygen bar function.

6.CLOCK Button

Used to set correct time.

7.CLOCK Button

Used to select TIMER ON, TIMER OFF.

(Note: if time of TIMER ON is the same as TIMER OFF,TIMER ON/OFF cannot be set)

8. FILTER Button

Used to set up/down function of filter.

9. CODE Button

Used to select code A or B, for this unit, the code is A.

10.RESET Button

Press this button by using a sharp article to resume the correct operation of the remote controller in case of need, i.e. for example in case of malfunctions due to electromagnetic noise.

11.LOCK Button

Used to lock operation button and LCD display contents: by pressing this button, other buttons comes out of function and lock state display appears; if you press it again, lock state will be no more active and lock state display will disappear.

12.LIGHT Button

Used to light the control panel (only for cabinet unit)

13.Up and down Button

Used to set TIMER and CLOCK up or down.

14.HIGH/SO Button

Used to select HIGH or SOFT operation.

15.SET Button

Used to confirm TIMER and CLOCK settings.

16.FRESH Button

Used to set fresh mode, the unit will draw in fresh air.

17.SLEEP Button

(The clock must be corrected before setting sleep function)

Used to set sleep mode.

NOTE: 1.Cooling only air conditioner does not have the displays and functions related to heating.

2.HIGH/SO button

This button is activated in Cooling/Heating mode, the fan speed is in AUTO mode after pressing it and "high functon" will be cancelled automatically after 15 minutes running.

18.FAN Button

Used to select fan speed:LOW,MID,HIGH,AUTO.

19.TIMER OFF Display

20.CLOCK Display

21.FILTER Display

22.TEMPERATURE Display

23.AUTO SWING Display

24.HIGH/SO Display

25.SIGNAL SENDING Display

26.FRESH AIR Display

27.ELECTRICAL HEATING Display

28.Some other buttons

All these functions are not available now.

29.HEALTH Display

Displays when healthy run function is set.

30.DEHUMIDIFICATION Display

31.Operation MODE Display

AUTO RUN	COOL RUN	DRY RUN	HEAT RUN	FAN RUN

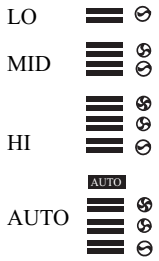
32.SLEEP State Display

33.BATTERY Energy Display

Notify the user when it is time to change the batteries.

34.LOCK State Display

35.FAN SPEED Display

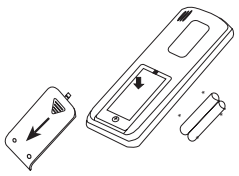


36.TIMER ON Display

Remote Controller' Operation

- When in use, direct signal transmission head to the receiver placed on the indoor unit
- The distance between the remote controller and the receiver should be max 7m and there should be no obstacle between them.
- Do not throw the remote controller; prevent it from being damaged.
- When operating the remote controller in an area where electronically controlled lights are installed or wireless handsets are used, please move closer to the indoor unit as the function of the remote controller might be affected by signals emitted by the above mentioned equipments.

Battery loading



Battery loading

Batteries are fitted as follows:

Remove the battery compartment lid

Slightly press and disengage the battery compartment lid marked with ì⩒î and then hold the remote controller by the upper section and then remove the battery compartment lid by pressing in the direction of the arrow as shown in the figure above.

Loading the battery

Ensure that batteries are correctly placed in the compartment as required for positive and negative terminals.

Replacing the battery compartment lid

The battery compartment lid is reinstalled in the reverse sequence.

Display review

Press the button to see if batteries are properly fitted. If no display appears, refit the batteries.

Confirmation indicator

If no indication is displayed after press ON/OFF button, reload the batteries.

Caution:

If the remote controller does not operate as designed after fitting new batteries of the same
type, press the Reset button (marked⬇) with a pointed article.

Note:
It is recommended that the batteries be removed from the compartment if the remote controller is not used for an extended period.
The remote controller is programmed for automatic test of operation mode after the batteries are replaced. When the test is conducted, all icons will appear on the screen and then disappear if the batteries are properly fitted.

Clock Set

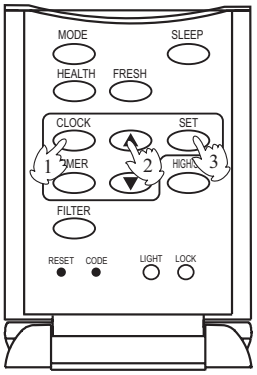
When unit is started for the first time and after replacing batteries in remote controller, clock should be adjusted as follows:

1.Press CLOCK button, clock indication of " AM " or " PM " flashes.

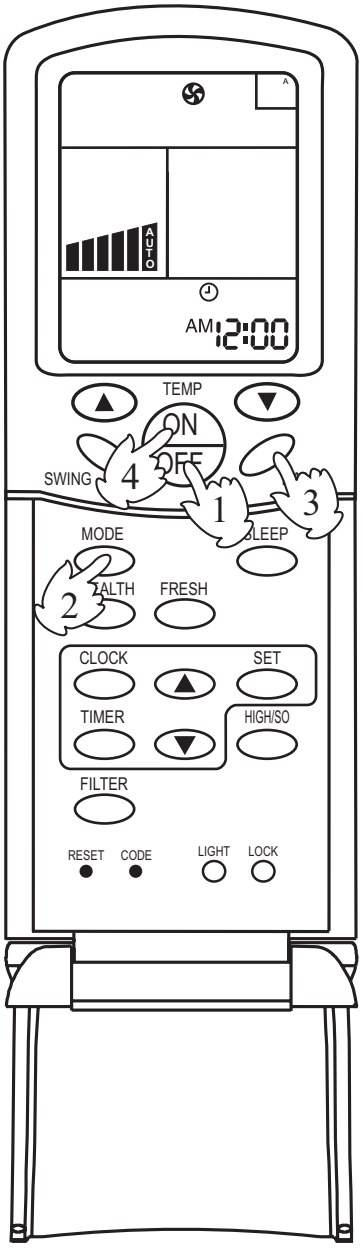
2.Press▲ or ▼ to set correct time. Each press will increase or decrease 1 min. If the button is kept pressed, time will increase or decrease quickly.

3.After time setting is confirmed, press "SET" : AM or PM stop flashing, while clock starts working.

Note:AM means morning and PM means afternoon.



Fan Operation



1.Unit start

Press ON/OFF button to start your air conditioner. Previous operation status appears on LCD (except for TIMER, SLEEP, and SWING setting).

2.Select operating mode

Press MODE button. At each press, operation mode changes as follows:

AUTO → COOL → DRY → HEAT → FAN

Then select FAN

3. Adjust fan speed

Press FAN button. At each press, fan speed changes as follows:

LOW → MID → HIGH

Air conditioner will run at the selected fan speed. When in AUTO mode, unit will adjust fan speed according to room temperature automatically.

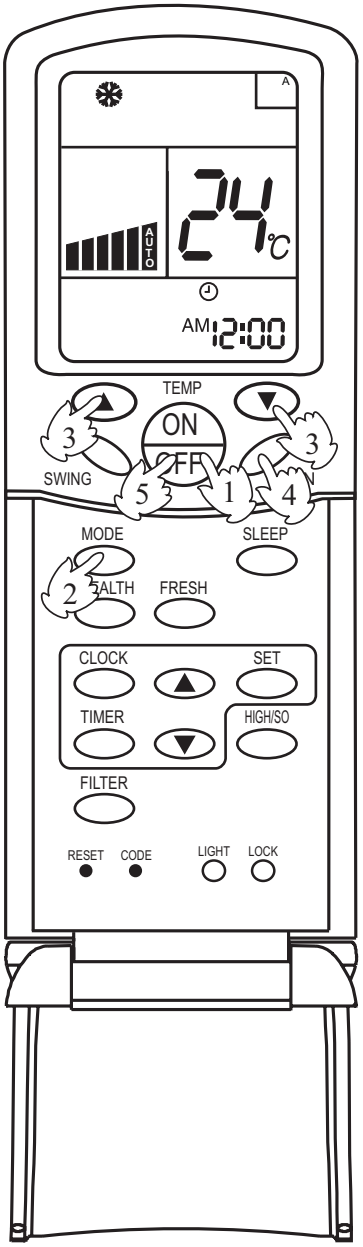
4. Unit stop

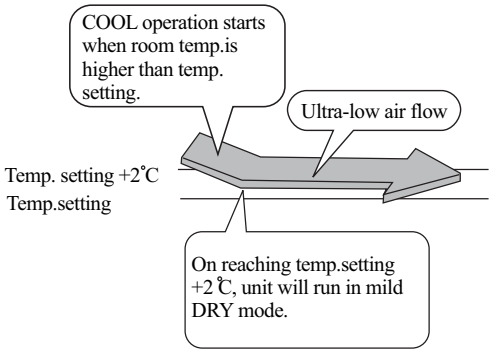
Press ON/OFF button to stop unit.

About FAN mode

When the air conditioner runs in FAN mode, it is not possible to select AUTO FAN or to set temperature.

AUTO, COOL , HEAT and DRY Operation




COOL operation starts when room temp.is higher than temp. setting.
Ultra-low air flow
Temp. setting +2℃
Temp.setting
On reaching temp.setting +2℃, unit will run in mild DRY mode.

1. Unit start

Press ON/OFF button,unit starts.

Previous operation status appears on LCD (except for TIMER, SLEEP and SWING setting)

2.Select operation mode

Press MODE button. At each press, operation mode changes as follows:

AUTO → COOL → DRY → HEAT → FAN

Then select AUTO run or select COOL operation or select DRY operation or select HEAT operation

3.Temperature setting

Press TEMP button.

▲ Every time the button is pressed, temp. setting increases 1℃; if the button is kept pressed, temp. setting will increase quickly.

▼ Every time the button is pressed, temp. setting decreases 1℃, if the button is kept pressed, temp. setting will decrease quickly.

Set proper temperature

4.Adjust FAN button

Press FAN button. At each press, fan speed changes as follows:

AUTO → LOW → MID → HIGH

Air conditioner will run at the selected fan speed.

5. Unit stop

Press ON/OFF button,unit stops.

In ATUO mode, the temperature setting is not displayed on LCD. In this mode, during running air conditioner will select COOL, HEAT or FAN mode automatically according to the room temperature.

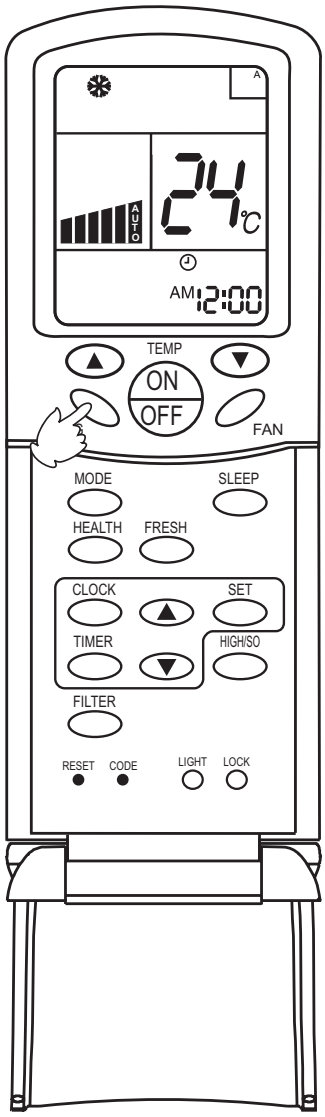
In DRY mode, when room temperature becomes 2℃ higher than temperature setting, unit will run intermittently at LOW speed regardless of FAN setting. When room temperature is lower than temperature setting, unit will only run FAN operation.

In HEAT mode,warm air will blow out after a short period of time due to cold-draft prevention function.

Adjusting air flow direction

AUTO SWING

Press SWING button.
Up and down airflow varies upwards and downwards. Left and right airflow varies left and right sides.



AUTO SWING

When the automatic swing louver moves to the proper angle, press SWING button can fix the airflow direction.

- Always use SWING button on the remote controller to adjust flaps. Adjusting them by hand may result in air conditioner's abnormally running.
- In COOL or DRY mode, do not leave the louver in downward position for a long time, as the water vapor close to the grille may condense and water may drop from the air conditioner.
- Please carefully set temperature when children, old or infirm people ues the air conditioner.
- In case of great humidity, If the vertical flaps are completely turned towards left or right, the louver will drop water.
- Never adjust the louver directly by hand, as this could make it work abnormally.If the louver work abnormally, stop unit, restart and adjust the louver by remote controller.

After unit stops:

Displays on the LCD disappear.
All indicators on the indoor unit go out.
Swing louver automatically close the air outlet.

Hints:

As in COOL mode air flows downwards, adjusting airflow horizontally will be much more helpful for a better air circulation
As in HEAT mode air flows upwards, adjusting airflow downward will be much more helpful for a better air circulation.
Be careful not to catch a cold when cold air blows downward directly.

Sleep Function

Before going to bed you can press down the SLEEP button and the air conditioner will run so as to make you sleep more comfortably.
Before using this function, the clock must be set.

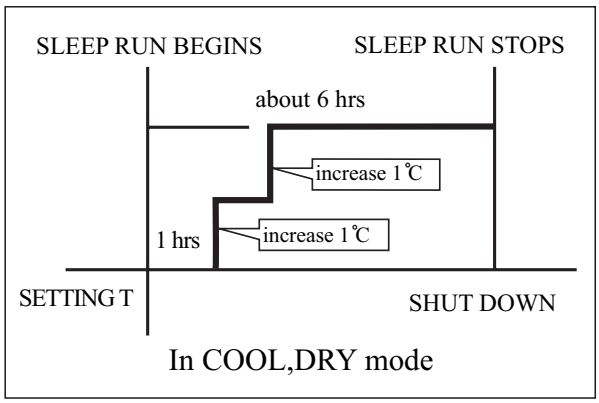
Use of SLEEP function

After the unit's start, set running mode and then press SLEEP button once to make the air conditioner have the previous-set sleep time (first power-on is "1h"). The sleep symbol will appear. Press time button ▲/▼: you can choose the time in 1~8 hours. Each time the button is pressed, the time increases/decreases 1 hour: "xh" and "OFF" indications appear on the display.

Operation Mode

1.In COOL, DRY mode

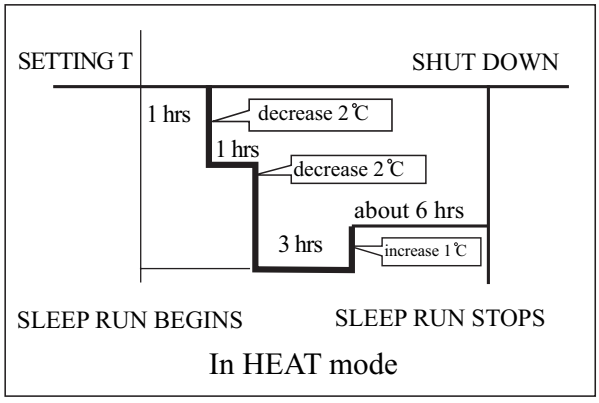
One hour after sleeping operation start, the temperature is 1℃ higher than the setting one. After another hour, temperature rises 1℃: sleep run continuously for another 6 hours and then stops. The actual temperature is higher than the setting one which is to prevent from being too cold to your sleep.



In COOL,DRY mode

2.In HEAT mode

One hour after sleeping operation start, the temperature is 2 C lower than the setting one. After another hour, temperature decreases by 2 C more. Temperature will automatically rise by 1 C after another 3 hours' continuous operation. The actual temperature is lower than the setting one which is to prevent from being too hot to your sleep.



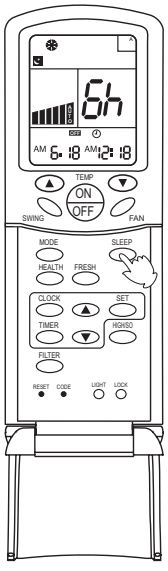
In HEAT mode

3.In AUTO mode.

The air conditioner will run in corresponding sleep operation according to the automatically selected operation mode.

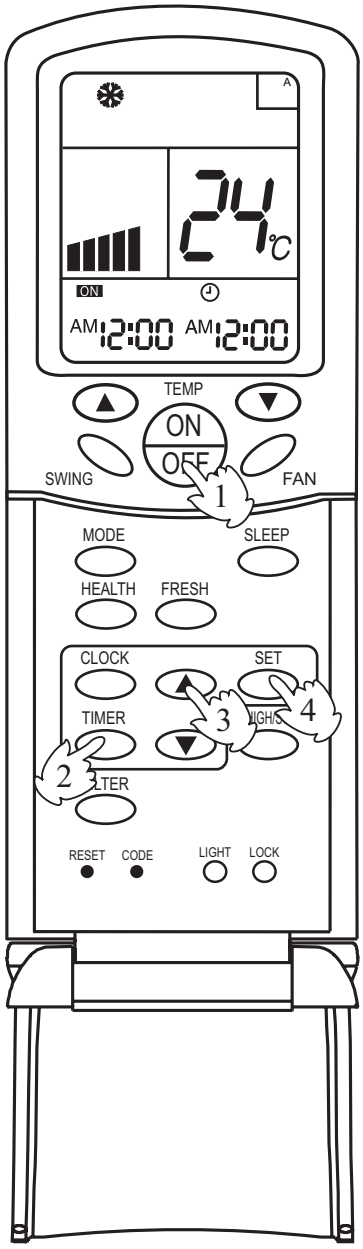
Notes:

- After setting SLEEP function, it is not possible to set clock.
- If set-sleep time does not reach 8 hours, unit will automatically stop operation after set time is reached.
- Set " TIMER ON " or " TIMER OFF "In COOL,DRY mode function first, then set SLEEP. After set SLEEP function, the TIMER function cannot be set.



Timer ON/OFF Function

Set clock correctly before starting TIMER operation

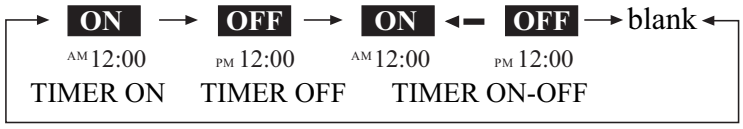


1.Unit start

After unit start, select your desired operation mode (operation mode will be displayed on LCD)

2.TIMER mode selection

Press TIMER button on the remote controller to change TIMER mode. Every time the button is pressed, display of TIMER mode changes as follows:



Then select TIMER mode as needed (TIMER ON or TIMER OFF). Now **ON** or **OFF** will flash.

3.TIMER setting (press time adjust buttons ▲▼)

▲ Every time the button is pressed, time increases 10 minuts. If the button is kept pressed, time changes quickly.

▼ Every time the button is pressed, time decreases 10 minuts. If the button is kept pressed, time changes quickly. It can be adjusted within 24 hours at will.

4.Confirm setting

After setting correct time, press SET button to confirm time. Now **ON** or **OFF** stop flashing.

Time displayed: unit starts or stops at X hour X min (TIMER ON or TIMER OFF)

5.Cancel TIMER mode

Just press TIMER button several times until TIMER mode disappears.

Hints:

After replacing batteries or if a power failure occurs, TIMER setting must be reset.

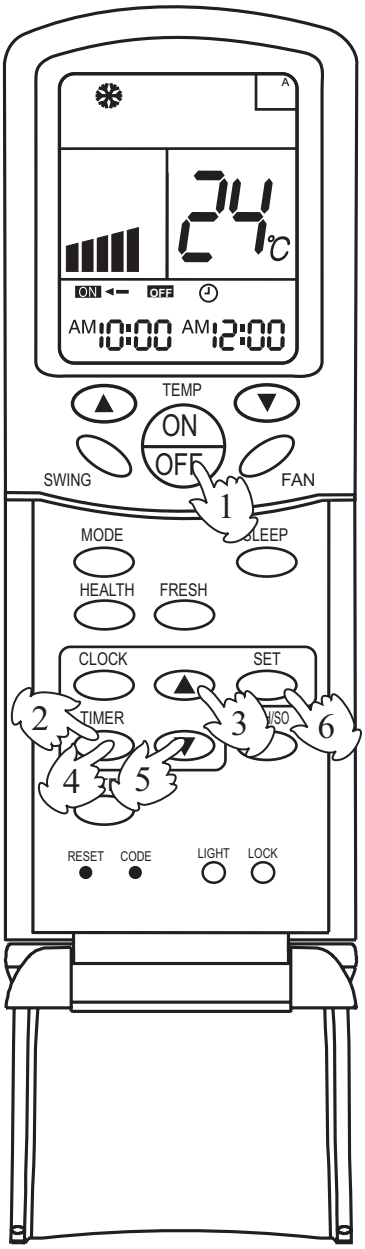
Remote controller has memory function. When you use TIMER mode next time, just press SET button after mode selection if timer setting is the same as the previous one.

Note:

After setting TIMER function, the remote controller displays TIMER time. If you want to see clock time, just press CLOCK button once: clock time will be displayed (if you press the button again continuously,you can adjust clock). 5 seconds later, the display will show TIMER time again.

Timer ON-OFF Function

Set clock correctly before starting TIMER operation



1.Unit start

After unit start, select your desired operation mode (operation mode will be displayed on LCD)

2.TIMER mode selection

Press TIMER button on the remote controller to change TIMER mode. Every time the button is pressed, display of TIMER mode changes as follows:

Then select TIMER ON-OFF mode. **ON** will flash.

3.Time setting for TIMER ON

Press time button ▲▼

▲ Every time the button is pressed, time increases 10 minuts. If the button is kept pressed, time will changes quickly.

▼ Every time the button is pressed, time decreases 10 minuts. If the button is kept pressed ,time will changes quickly. It can be adjusted within 24 hours at will. AM refers to morning and PM refers to afternoon.

4.Timer confirming for TIMER ON

After setting correct time, press TIMER button to confirm time. Now **ON** stops to flash, while **OFF** starts flashing.

Time displayed : unit starts at X hour X min.

5.Timer setting for TIMER OFF

Press time buttons ▲▼ and follow the same procedures in " Time setting for TIMER ON"

6.Time confirming for TIMER OFF

After time setting, press SET button to confirm time. **OFF** stops to flash.

Time displayed: unit starts at X hour X min.

7.Canel TIMER mode

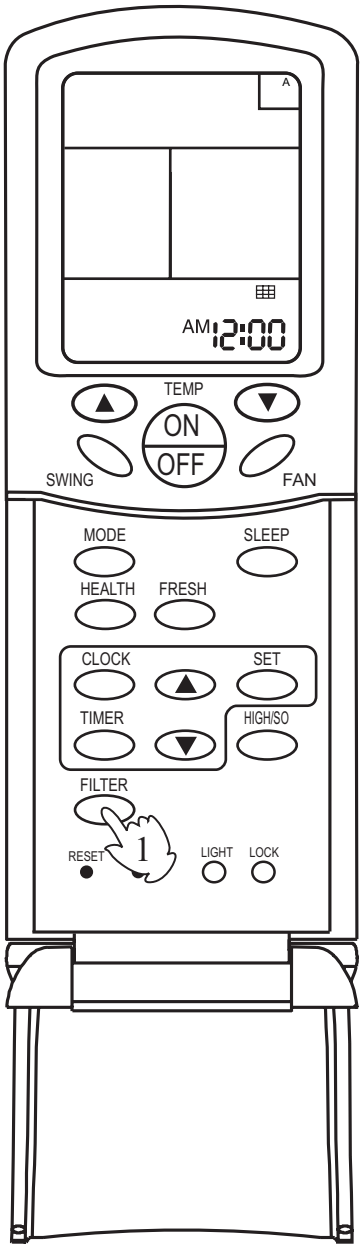
Just press TIMER button several times until TIMER mode disappears.

According to the time setting sequence of TIMER ON and TIMER OFF, either start-stops or stops-start can be realized.

If the time setting of TIMER ON is the same as TIMER OFF, TIMER ON-OFF function cannot be set.

Filter Up/Down

(Only for 600*600panel)



After the air conditioner has operated for a certain period, dust has accumulated on the filter, and the filter up/down function can be used to clean it.

1. Whether unit starts or stops, continuously press FILTER button for 3 seconds, and enter the filter up/down waiting status (when unit stops, the yellow TIMER indicator flashes, and filter and clock indication are displayed on the remote controller. Only the FILTER button, the temperature buttons "△" "▽" and time buttons ▲▼ are active).

2. Press temperature "▽" button or time "▼" button in filter up/down waiting status: the up/down mechanism makes the filter moving downward and does not stop until it has reached the maximum limit.

3. Press temperature "△" button or time "▲" button in filter up/down waiting status: the up/down mechanism makes the filter to moving upward till near the surface board and then automatically adjusts it to reset (when adjusting to reset, it will not be controlled by the remote controller till the adjustment is finished).

4. During moving downward, press temperature "△" button or time "▲" button: moving stops.

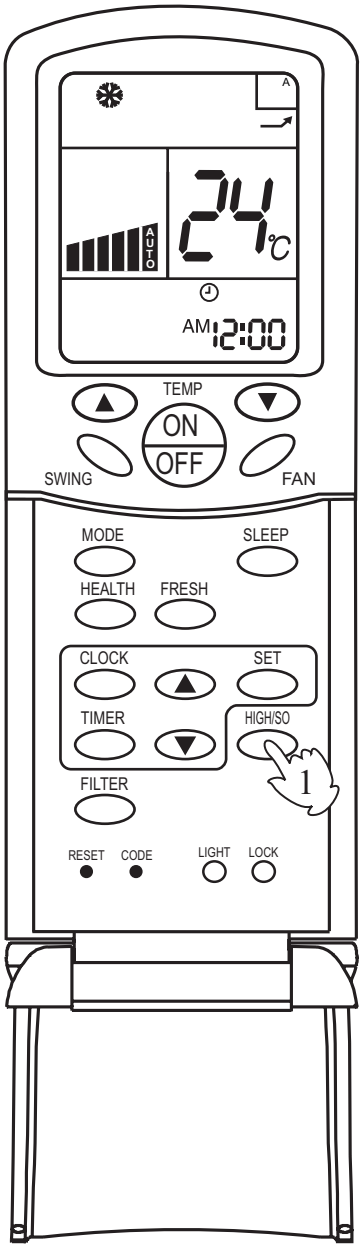
5. During moving downward, press temperature "▽" button or time "▼" button: moving stops.

6. Continuously press FILTER button 3 seconds again to cancel the filter up/down waiting mode (unit stops, the yellow timer indicator stops flashing, the filter goes back to the original position, the remote controller goes back to off status and only clock is displayed).

Note:

If the filter does not thoroughly go back to the original position, only needs to operate several times repeatedly.

" High mode " Operation



Outline of operation in "High Mode"

This function is suitable when the set temperature must be reached in the shortest delay.
The button "HIGH/SO", referred to this function, is effective in Cooling/Heating mode (not in Auto/Dry/Fan modes).

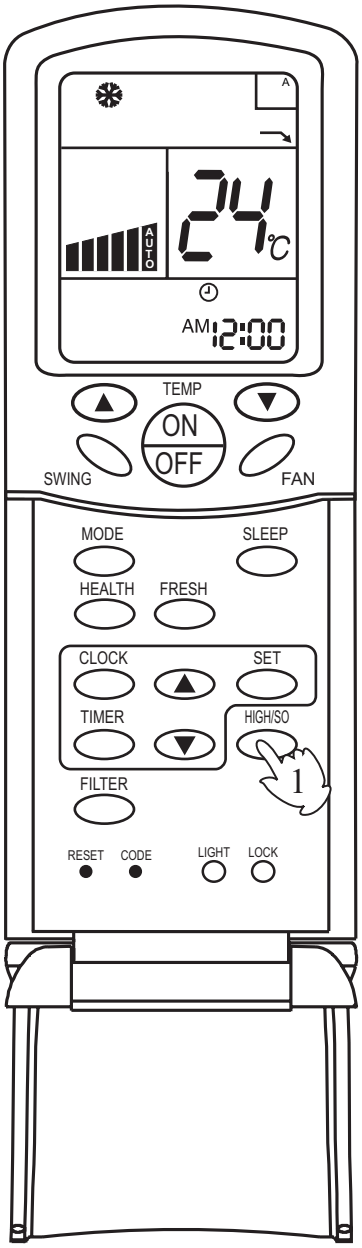
ON
Press the HIGH/SO button noce The indication appears on the display of the remote controller and operation in "High Mode" starts. The AUTO fan speed is automatically set and the corresponding indication is also displayed.

OFF
Press the HIGH/SO button twice If the button is pressed once, the indication is displayed on the remote controller. If you press the button once again, the indication disappears, regular operation is restored and fan speed goes back to the mode set before "High Mode" operation.

NOTICE:

- When the air conditioner is operating in " High Mode " , unevenness of room air temperature may occur due to the intensive operation in a short time.
- Anyway, operation in "High Mode", does not last for more than 15 minutes, then regular operation is automatically restored.

" Soft mode " Operation



Outline of operation in "Soft Mode"

Operation in "Soft Mode", more silent, is suitable when noises should be reduced, e.g.. for reading or sleeping.
The button "HIGH/SO", referred to this operation, is effective in Cooling/Heating mode (not in Auto/Dry/Fan modes).

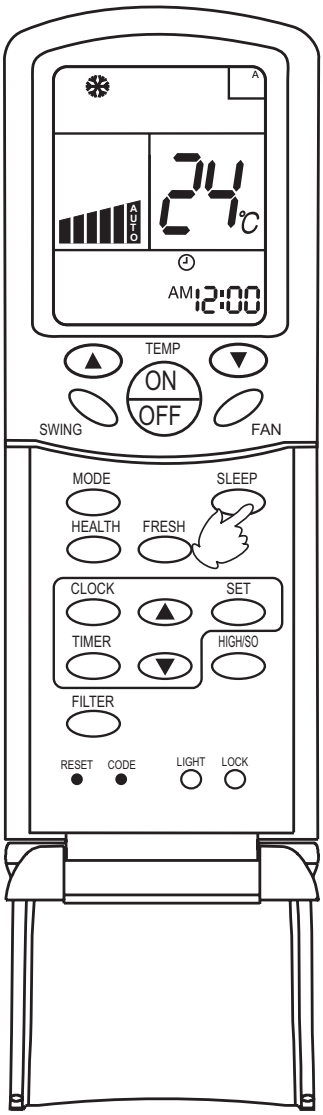
ON
Press the HIGH/SO button twice The indication appears on the display of the remote controller and operation in "Soft Mode" starts. The AUTO fan speed is automatically set and the corresponding indication is also displayed.

OFF
Press the HIGH/SO button twice If the button is pressed once, the indication is disappears from the remote controller's display. If you press the button once again, regular operation is restored and fan speed goes back to the mode set before "Soft Mode" operation.

NOTICE:

- When the air conditioner is operating in " High Mode " , unevenness of room air temperature may occur due to the intensive operation in a short time.
- Anyway, operation in "High Mode", does not last for more than 15 minutes, then regular operation is automatically restored.

Auto restart function setting



Setting method (to be applied for a necessary situation) :

After the power failure compensation is set, if power failure suddenly occurs while the air conditioner is working, it will resume the previous working state when the power is supplied again.

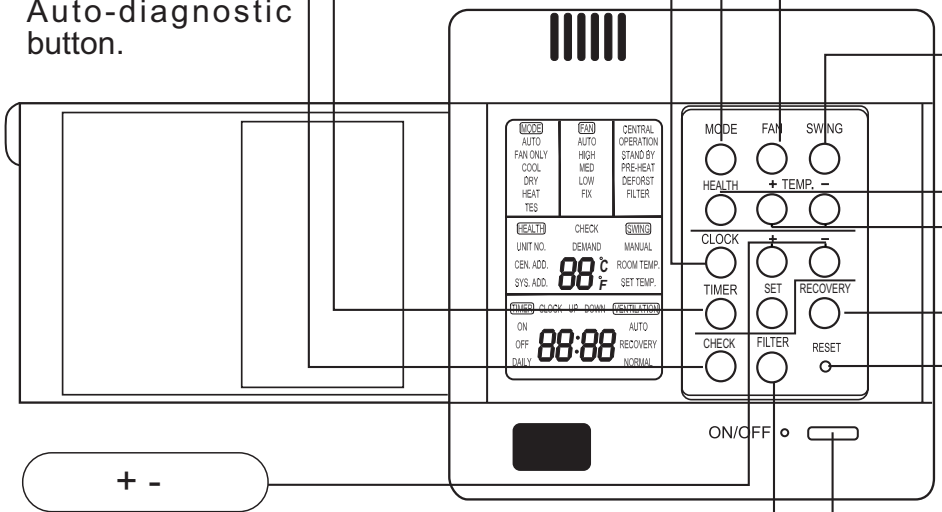
Setting Method: When the remote controller is on (excluding timer mode and fan mode), press the "Sleeping" button on the remote controller 10 times within 5 seconds, and after the buzzer rings 4 times, the air conditioner will enter the state of power failure compensation.

Cancel Method: Press the "Sleeping" button on the remote controller 10 times within 5 seconds, and after the buzzer rings 2 timer, the power failure compensation mode will be cancelled.

Notes: When a power failure suddenly occurs during the air conditioner is working after the power failure compensation is set, if the air conditioner will not be used for a long time, please cut off the power supply to prevent its operation from being resumed after the power is supplied again, or press the "Switch On/Off" button after the power comes again.

Wired controller YR-E12 functions:

Buttons and functions of the wired controller



CLOCK

Used to adjust time.

TIMER

Used to set timer mode.

CHECK

Auto-diagnostic button.

+ -

stands for time plus/minus, used to adjust time.

FILTER

Filter-cleaned button.

POWER ON/OFF

Used for unit start and stop.

MODE

Used for select indoor operation mode.

FAN SPEED

Used for select indoor air flow.

SWING

Used for setting indoor swing mode.

HEALTH

Used for setting indoor health function.

TEMP + -

Used for changing set temperature.

RECOVERY

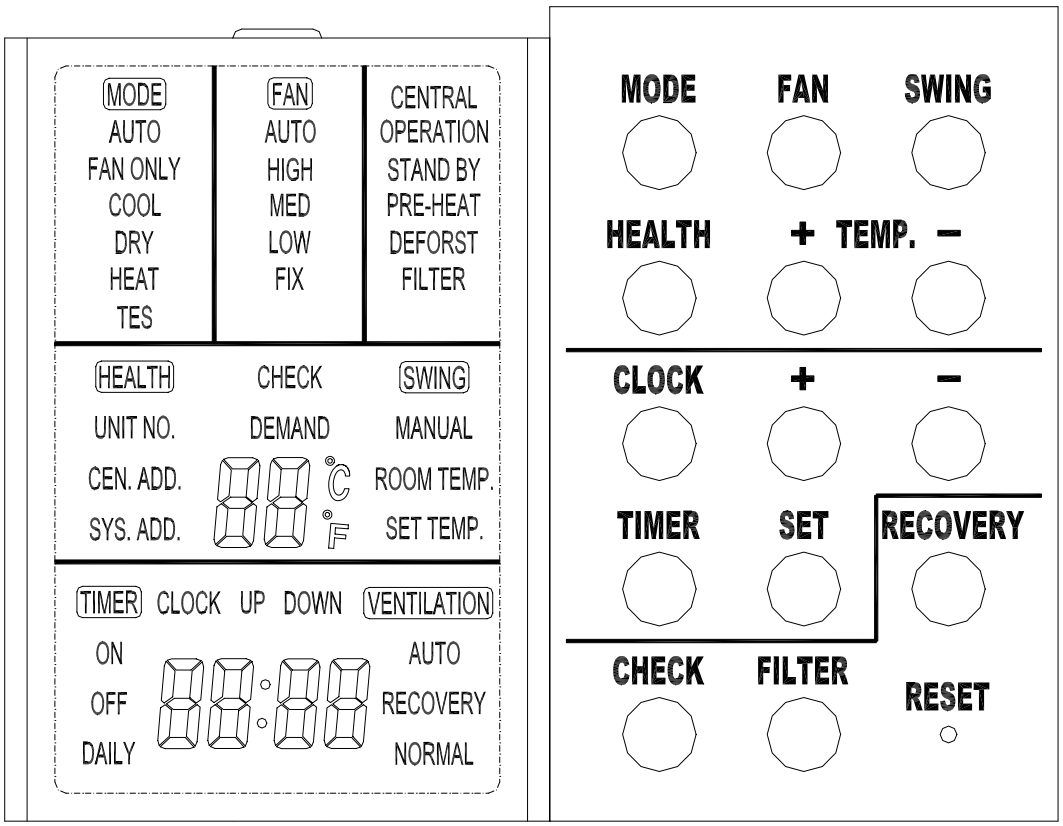
used to switch over air-exchanging mode.

RESET

Reset correct mode button.

Cautions:
On cooling only unit, heating mode is not available.

Note:
The above information is the explanation of the displayed information therefore varies with those displayed in actual operation.



Buttons function：

MODE：used for select indoor operation mode.

FAN：used for select indoor air flow.

SWING：used for setting indoor swing mode.

HEALTH：used for setting indoor health function.

TEMP + -：used for changing set temperature.

CLOCK：used to adjust time.

+、-：stands for time plus/minus, used to adjust time.

TIMER：used to set timer mode.

RECOVERY：used to switch over air-exchanging mode.

CHECK：auto-diagnostic button.

FILTER：filter-cleaned button.

RESET：reset correct mode button.

Display description：

[MODE] [AUTO]：auto operation mode

[MODE] [FAN ONLY]：air-throwing mode

[MODE] [COOL]：Cooling operation mode

[MODE] [DRY]：Dehumidification mode

[MODE] [HEAT]：Heating operation mode

[MODE] [HEAT] [TES]：In heating mode, auxiliary electric heater is running. Only when the unit with auxiliary electric heater is in auxiliary electric heating mode, it will display.

[FAN] [AUTO]：auto fan running

[FAN] [HIGH]：high fan speed
[FAN] [MED]： medium fan speed
[FAN] [LOW]： low fan speed
[FAN] [FIX]： fixed fan speed, it will display only when fixed fan speed is requested to main indoor unit.
[CENTRAL]： central control mode
[OPERATION] ：running mode
[STAND BY] ： waiting mode
[PRE-HEAT] ： pre-heating mode
[DEFROST]： defrosting mode
[FILTER] ： request of filter to be cleaned
[HEALTH]：health function
[UNIT NO.]
[CEN.ADD]：central control address, the address number will display on “88”
[SYS.ADD.]：system address, the address number will display on “88”
[CHECK]：auto-diagnostic, trouble shooting
[DEMAND]：compulsory operation function, when it works, [CENTRAL] will flash
[SWING]：swing mode
[ROOM TEMP.]：indoor ambient temperature
[SET TEMP.]：set admired temperature
[TIMER][ON] ：timer function is on, it will switch over in the sequence below:
[ON][OFF] → [ON][OFF][DAILY] →[ ]
[TIMER][OFF] ：timer function is off
[TIMER][ON][OFF] ：timer function ON-OFF
[TIMER][ON][OFF][DAILY]：timer ON-OFF will switch over in turn daily
[CLOCK]：clock display, the displaying time is the current time of the clock.
[UP]、[DOWN]：indicator of filter elevating
[VENTILATION][AUTO]：auto ventilation mode
[VENTILATION][RECOVERY]：fully heat exchanging ventilation mode
[VENTILATION][NORMAL]：normal ventilation mode

FAN ONLY OPERATION：

1）Start up operation: press the button of ON/OFF, the system will start up, and will display [MODE][AUTO]；[FAN][AUTO]；[ROOM TEMP.]+ “24℃”；[CLOCK]+”12：00”.

2） Select MODE: press the MODE button, then you will see in the display section [MODE] switch over in below sequence:[FAN ONLY]→[COOL]→[DRY]→[HEAT]→[AUTO]→[FAN ONLY]. Select [FAN ONLY].

3）Select fan speed: press FAN button, then you see in the display section [FAN] switch over in below sequence: [HIGH]→[MED]→[LOW]→[HIGH]. Select proper fan speed.

4）Power off: press ON/OFF button, indoor unit will be powered off, there are only time and the ambient temperature in the screen.

AUTO operation, COOLING, HEATING and DEHUMIDIFICATION operation

1) Start up operation: press the button of ON/OFF, the system will start up, and will display [MODE][AUTO]；[FAN][AUTO]；[ROOM TEMP.]+ “24℃”；[CLOCK]+”12：00”.
2) Select MODE: press the MODE button, then you will see in the display section [MODE] switch over in below sequence:[FAN ONLY]→[COOL]→[DRY]→[HEAT]→[AUTO]→[FAN ONLY]. Select [FAN ONLY].
3) Change set temperature: press TEMP + or – every time, [SET] will display, and set temperature will increase/reduce 1℃（F）.
4) Select fan speed: press FAN button, then you see in the display section [FAN] switch over in below sequence: [HIGH]→[MED]→[LOW]→[HIGH]. Select proper fan speed.
5) Select [SWING]: press [SWING] button, swing function is valid. Press again, swing function is invalid.
6) Set [HEALTH]: used to set the indoor health function. Press it once, [HEALTH] will display in the display section, then indoor health function is valid. Press it again, [HEALTH] will disappear, then the health function is invalid.
This function is valid only for the unit with health function.
7) Power off: press ON/OFF button, indoor unit is powered off. There are only time and the ambient temperature in the screen.

Set TIMER operation:

Adjust clock: when powered on, for the first time to set timer function, the clock will be adjusted.
Press “CLOCK” button, and set the current clock. Now, “CLOCK” will flash at the frequency of 2Hz every minute. Press the clock +/- button; the current clock can be adjusted. Until the proper time comes, press [SET].

TIMER ON operation:
Press TIMER button, and keep pressing it, in the display section [TIMER] will switch over in below sequence: [ON]→[OFF]→[ON][OFF] → [ON][OFF][DAILY] →[ ]. Select [TIMER] [ON], then [TIMER] [ON] flashes, press the clock +/- button to adjust the time of TIMER ON, press [SET] button.

TIMER OFF operation:
Press TIMER button, and keep pressing it, in the display section [TIMER] will switch over in below sequence: [ON]→[OFF]→[ON][OFF] → [ON][OFF][DAILY] →[ ]. Select [TIMER] [OFF], then [TIMER] [OFF] flashes, press the clock +/- button to adjust the time of TIMER OFF, press [SET] button.

TIMER ON-OFF operation:
Press TIMER button, and keep pressing it, in the display section [TIMER] will switch over in below sequence: [ON]→[OFF]→[ON][OFF] → [ON][OFF][DAILY] →[ ]. Select [TIMER] [ON] [OFF]. Firstly, [TIMER][ON] flashes, press the clock +/- button to adjust the time of

TIMER ON, press [TIMER]. [TIMER][ON] will be constant on. Then [TIMER] [OFF] flashes, press the clock +/- button to adjust the time of TIMER OFF, press [SET]. The time sequence of timer on and timer off will determine the mode is [TIMER] [ON] →[OFF] or [TIMER] [OFF] →[ON]. If you want the current time, press [CLOCK] once, current time will display; press again, [CLOCK] will flash, and press [+][-] to adjust the time.
Note: 1. If the two times are same, the timer state which is set later will flash, in this case, timer can not be set.
2. When entering TIMER setting state, if you do not input any button in continuous 10 seconds, the unit will quit from the TIMER mode.

Cancel TIMER operation:
In the timer operation state, press [TIMER] button, the unit will quit from the current timer operation state, and the set data will be memorized, then enter the next timer mode.

[FILTER] function
When the wired controller receives the filter-cleaned signal from indoor unit, [FILTER] will display. After finishing clean, press **[FILTER]**, the sign [FILTER] disappears, and the controller will send the filter reset signal to indoor unit.
When the sign [FILTER] not display, it is invalid to press **[FILTER]** in short time.

FILTER ELEVATING function: (only for the unit with elevating function)
When the filter needs to be cleaned, the panel can be lowered to the admired height by the [FILTER][UP][DOWN] function. Method is below: In power off state, press [HEALTH] for 15 seconds to enter filter elevating set state. In this state, the sign [FILTER] will flash and [UP] [DOWN] will display simultaneously, Press TEMP [+], in timer section [UP] will display, while press TEMP [-], in timer section [DOWN] will display. When it arrives the appropriate position, press [UP], [UP][DOWN] will display simultaneously, filter will stop going down. Press [UP] again, filter will go up. Press [FILTER] button to quit the mode.

DEMAND operation function:
By this function, all the indoor units can be made in nominal mode. Set the operation mode in cooling and then shut off the unit. In the stop state, press [ON/OFF] button for 5 seconds to enter cooling trial operation state. If it is in heating mode before shut off the unit, then press [ON/OFF] button for 5 minutes, it will enter heating trial operation state.

In cooling, there will be “LL” in the position where the set temperature displays. In heating, there will be “HH” in the position where the set temperature displays. The wired controller will send the [DEMAND] signal to indoor unit. In the [DEMAND] operation, “COOL” or “HEAT” will display at 1Hz frequency. Indoor fan motor will be fixed at “AUTO” mode. The indoor units in the same group will quit the [DEMAND] in turn.

At this time, only the buttons of [ON/OFF] and temperature [+] [-] are valid. Press [ON/OFF] to quit [DEMAND] mode.

CENTRAL control function

When the central controller selects [CENTRAL] mode, the buttons in the wired controller except for [CHECK] will be invalid.

VENTILATION mode (only for the unit with fresh air function or heat recovery function)

Press [RECOVERY] button, then the unit will switch over the ventilation mode:

[ ] → [VENTILATION][AUTO] → [VENTILATION][RECOVERY] → [VENTALATION][NORMAL] →[ ], please select appropriate ventilation mode.

Query indoor malfunction history:

In the state of power on or power off, press [CHECK] button, enter the malfunction-querying mode of all indoor units in the group. Then [CHECK] and [UNIT NO.] will display, and the actual indoor numbers will be displayed in some sequence (unit number is in decimals). At the same time, in the time region, there will be the current malfunction and the latest time malfunction, the displaying format is [XX：YY], in which XX stands for the current malfunction, if normal, it will display "——"; YY stands for the latest time malfunction. The failure code of every unit will display for 3 seconds. After the failure codes of all indoor units in the whole group are displayed, the mode will quit automatically.

Clear abnormal state and malfunction history:

In normal state, press [CHECK] button for 5 seconds to clear abnormal states, at the same time, wired controller will send the data of "clear abnormal state", but the malfunction history still retains.

In normal state, press [CHECK] button for 15 seconds, except for malfunction states, the malfunction history in wired controller will be cleared.

Query indoor performance state:

In normal state, press both buttons of [CHECK] and [FILTER] for 5 seconds, in the set temperature region in the screen, [XX] will display, XX is indoor number, which can be selected by pressing [TEMP] [+] [-]. In the timer region in the screen, [YZZZ] will display, in which Y stands for data type, ZZZ stands for the corresponding data. which can be selected by pressing [CLOCK] [+] [-].

Y	ZZZ	Type
A	Indoor capacity (W)	Nominal cooling capacity/10, decimal
B	Request of indoor capacity（Hz）	Actual value, decimal
C	Temperature of indoor ambient temp. sensor TA	Actual value, decimal
d	Temperature of indoor gas pipe sensor TC1	Actual value, decimal
E	Temperature of indoor liquid pipe sensor TC2	Actual value, decimal
F	Open degree of indoor PMV	Actual value, decimal

g	Preset	———
H	Outdoor total capacity	Actual value, decimal

In check mode, press [CHECK] to quit the check mode, and go into normal running mode.

How to change the function switches?

No.	Type	State of switch	Function description
J01	Changeover of Wired controller and central controller	Connected	Central controller
		Cut off	Wired controller
J02	Changeover of type of wired controller	Connected	Set as simple controller
		Cut off	Set as standard controller
J06	Selection of room temp. sensor	Connected	Use the sensor in the wired controller
		Cut off	Use the sensor in the indoor unit
J07	Auto restart after power failure	Connected	Common control
		Cut off	Auto restart after power failure
J03	Display of room temperature	Connected	Yes
		Cut off	No
SW01 ①	Changeover of master or slave controller	ON	Set as slave controller
		OFF	Set as master controller
SW01 ②	℃ or ℉	ON	℉
		OFF	℃
D1	Shorten time function	Connected	Indoor unit in shorted time function
		Cut off	Common control
D2	Compulsorily defrost	Connected	Send compulsorily defrost signal to indoor unit
		Cut off	Common control

Note: 1. The switches in grey can be operated after opening the cover of wired controller.

2. Switches or jumper wire must be adjusted when the wired controller is powered off. If the wired controller is powered on, the above operations will be invalid.

3. Shorten time function

In normal operation, D1 is in short circuit, it will enter shorten time mode, and the time will be shortened in the proportion of 60:1. In shorten time mode, LED will flash at the frequency of 0.5 second. Cut off D1, it will quit the shorten time mode and return to the normal operation mode.

4. Compulsorily defrost

In heating mode, D2 is in short circuit, it will enter compulsorily defrost mode; cut off D2, it will quit.

5. Lock function

There is no lock function only in the wired controller. But when it is connected with a central

controller, if the central controller is set to “central”, the buttons in the wired controller will be invalid, or the buttons will be valid.

Failure code:

For remote type, flash times	Failure code on wired controller	For central control, failure code	Failure description	Reason	Remarks
10	08(08H)	21D	Drainage system abnormal	Float switch broken down for more than 25m continuously	○
1	01(01H)	01D	Indoor ambient temp. sensor failure	sensor broken down or short circuit for more than 2m continuously	○
2	02(02H)	02D	Indoor coil temp. sensor failure	sensor broken down or short circuit for more than 2m continuously	○
3	74(4AH)	11D	Outdoor ambient temp. sensor failure	sensor broken down or short circuit for more than 2m continuously	○
4	73(49H)	12D	Outdoor coil temp. sensor failure (compressor discharging temp. sensor)	Sensor broken down or short circuit for more than 2m continuously	○
5	72(48H)	10D	Over-current protection	CT check abnormal 3 times in 30m	※
6	83(53H)	14D	High pressure abnormal	High pressure switch acts 3 times in 30m	※
7	71(47H)	22D	Power supply abnormal	Fault phase, short of phase, out of balance greatly	※
8	07(07H)	06D	Communication between wired controller and indoor abnormal	Communication abnormal for more than 4m continuously	○
9	06(06H)	05D	Communication between indoor and outdoor abnormal	Communication abnormal for more than 4m continuously	○
11	11(0BH)	30D	Outside alarm signal input	Outside signal broken down for more than 10s	○
12	03(03H)	20D	Gas pipe temp. sensor abnormal	Sensor broken down or short circuit for more than	○

				2m continuously	
13	13(0DH)	31D	Solenoid valve abnormal	Solenoid valve act incorrectly 3 times continuously	○
14	76(4CH)	15D	Discharging temp. sensor abnormal	Sensor broken down or short circuit for more than 2m continuously	○
15	05(05H)	17D	EEPROM abnormal	EEPROM data missing	Run as the default value
16	84(54H)	26D	Pressure abnormal(low pressure)	Low pressure switch acts in normal running	○
17	80（50H）	15D	Compressor overheat	the discharging temperature is higher than 120degree	Resumable if lower than 100degree
18	12（0CH）	23D	Abnormal mode	Indoor operation mode is different with the running indoor unit.	○
19	75（4BH）	18D	Outdoor coil B(suction temp sensor—for MRV II)	Sensor broken down or short circuit for more than 2m continuously	○
20	77（4DH）	15D	Outdoor discharging B(oil temp sensor—for MRV II)	Sensor broken down or short circuit for more than 2m continuously	○

○ shows resumable fault, ※ shows it is not resumable fault.

Setting address method:

The address setting can be realized by setting indoor PCB.

If you use the group control function, there should be a master unit and 15 sets of slave units. For the master unit, the SW5-3 should be at “1”. For the slave units, the SW5-3 should be at “0”.

Please refer the below table,

Indoor unit address	SW1-4	SW1-3	SW1-2	SW1-1
1	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	ON
3	OFF	OFF	ON	OFF
4	OFF	OFF	ON	ON
5	OFF	ON	OFF	OFF
6	OFF	ON	OFF	ON
7	OFF	ON	ON	OFF

8	OFF	ON	ON	ON
9	ON	OFF	OFF	OFF
10	ON	OFF	OFF	ON
11	ON	OFF	ON	OFF
12	ON	OFF	ON	ON
13	ON	ON	OFF	OFF
14	ON	ON	OFF	ON
15	ON	ON	ON	OFF
16	ON	ON	ON	ON

If you use central control type, SW1, SW2 will be used simultaneously.
Wiring request in central control type: port A-B is connected with indoor port CN16（A-B）through 2-core shield wire. Requirements:

1. Port A connects with port CN16（A）of all indoor units.
2. Port B connects with port CN16（B）of all indoor units.

Address on central controller	Indoor unit address	SW2-3	SW2-2	SW2-1	SW1-4	SW1-3	SW1-2	SW1-1
1	1	ON	OFF	OFF	OFF	OFF	OFF	OFF
2	2	ON	OFF	OFF	OFF	OFF	OFF	ON
3	3	ON	OFF	OFF	OFF	OFF	ON	OFF
4	4	ON	OFF	OFF	OFF	OFF	ON	ON
5	5	ON	OFF	OFF	OFF	ON	OFF	OFF
6	6	ON	OFF	OFF	OFF	ON	OFF	ON
7	7	ON	OFF	OFF	OFF	ON	ON	OFF
8	8	ON	OFF	OFF	OFF	ON	ON	ON
9	9	ON	OFF	OFF	ON	OFF	OFF	OFF
10	10	ON	OFF	OFF	ON	OFF	OFF	ON
11	11	ON	OFF	OFF	ON	OFF	ON	OFF
12	12	ON	OFF	OFF	ON	OFF	ON	ON
13	13	ON	OFF	OFF	ON	ON	OFF	OFF
14	14	ON	OFF	OFF	ON	ON	OFF	ON
15	15	ON	OFF	OFF	ON	ON	ON	OFF
16	16	ON	OFF	OFF	ON	ON	ON	ON
17	--------	ON	OFF	ON	OFF	OFF	OFF	OFF
18	--------	ON	OFF	ON	OFF	OFF	OFF	ON
19	--------	ON	OFF	ON	OFF	OFF	ON	OFF
20	--------	ON	OFF	ON	OFF	OFF	ON	ON
21	--------	ON	OFF	ON	OFF	ON	OFF	OFF
22	--------	ON	OFF	ON	OFF	ON	OFF	ON
23	--------	ON	OFF	ON	OFF	ON	ON	OFF
24	--------	ON	OFF	ON	OFF	ON	ON	ON
25	--------	ON	OFF	ON	ON	OFF	OFF	OFF

26	--------	ON	OFF	ON	ON	OFF	OFF	ON
27	--------	ON	OFF	ON	ON	OFF	ON	OFF
28	--------	ON	OFF	ON	ON	OFF	ON	ON
29	--------	ON	OFF	ON	ON	ON	OFF	OFF
30	--------	ON	OFF	ON	ON	ON	OFF	ON
31	--------	ON	OFF	ON	ON	ON	ON	OFF
32	--------	ON	OFF	ON	ON	ON	ON	ON
33	--------	ON	ON	OFF	OFF	OFF	OFF	OFF
34	--------	ON	ON	OFF	OFF	OFF	OFF	ON
35	--------	ON	ON	OFF	OFF	OFF	ON	OFF
36	--------	ON	ON	OFF	OFF	OFF	ON	ON
37	--------	ON	ON	OFF	OFF	ON	OFF	OFF
38	--------	ON	ON	OFF	OFF	ON	OFF	ON
39	--------	ON	ON	OFF	OFF	ON	ON	OFF
40	--------	ON	ON	OFF	OFF	ON	ON	ON
41	--------	ON	ON	OFF	ON	OFF	OFF	OFF
42	--------	ON	ON	OFF	ON	OFF	OFF	ON
43	--------	ON	ON	OFF	ON	OFF	ON	OFF
44	--------	ON	ON	OFF	ON	OFF	ON	ON
45	--------	ON	ON	OFF	ON	ON	OFF	OFF
46	--------	ON	ON	OFF	ON	ON	OFF	ON
47	--------	ON	ON	OFF	ON	ON	ON	OFF
48	--------	ON	ON	OFF	ON	ON	ON	ON
49	--------	ON	ON	ON	OFF	OFF	OFF	OFF
50	--------	ON	ON	ON	OFF	OFF	OFF	ON
51	--------	ON	ON	ON	OFF	OFF	ON	OFF
52	--------	ON	ON	ON	OFF	OFF	ON	ON
53	--------	ON	ON	ON	OFF	ON	OFF	OFF
54	--------	ON	ON	ON	OFF	ON	OFF	ON
55	--------	ON	ON	ON	OFF	ON	ON	OFF
56	--------	ON	ON	ON	OFF	ON	ON	ON
57	--------	ON	ON	ON	ON	OFF	OFF	OFF
58	--------	ON	ON	ON	ON	OFF	OFF	ON
59	--------	ON	ON	ON	ON	OFF	ON	OFF
60	--------	ON	ON	ON	ON	OFF	ON	ON
61	--------	ON	ON	ON	ON	ON	OFF	OFF
62	--------	ON	ON	ON	ON	ON	OFF	ON
63	--------	ON	ON	ON	ON	ON	ON	OFF
64	--------	ON	ON	ON	ON	ON	ON	ON
65	--------	ON	OFF	OFF	OFF	OFF	OFF	OFF
66	--------	ON	OFF	OFF	OFF	OFF	OFF	ON
67	--------	ON	OFF	OFF	OFF	OFF	ON	OFF
	--------	ON	OFF	OFF	OFF	OFF	ON	ON

	--------	ON	OFF	OFF	OFF	ON	OFF	OFF
	--------	ON	OFF	OFF	OFF	ON	OFF	ON
	--------	ON	OFF	OFF	OFF	ON	ON	OFF
	--------	ON	OFF	OFF	OFF	ON	ON	ON
	--------	ON	OFF	OFF	ON	OFF	OFF	OFF
	--------	ON	OFF	OFF	ON	OFF	OFF	ON
	--------	ON	OFF	OFF	ON	OFF	ON	OFF
	--------	ON	OFF	OFF	ON	OFF	ON	ON
	--------	ON	OFF	OFF	ON	ON	OFF	OFF
	--------	ON	OFF	OFF	ON	ON	OFF	ON
	--------	ON	OFF	OFF	ON	ON	ON	OFF
	--------	ON	OFF	OFF	ON	ON	ON	ON
	--------	ON	OFF	ON	OFF	OFF	OFF	OFF
	--------	ON	OFF	ON	OFF	OFF	OFF	ON
	--------	ON	OFF	ON	OFF	OFF	ON	OFF
	--------	ON	OFF	ON	OFF	OFF	ON	ON
	--------	ON	OFF	ON	OFF	ON	OFF	OFF
	--------	ON	OFF	ON	OFF	ON	OFF	ON
	--------	ON	OFF	ON	OFF	ON	ON	OFF
	--------	ON	OFF	ON	OFF	ON	ON	ON
	--------	ON	OFF	ON	ON	OFF	OFF	OFF
	--------	ON	OFF	ON	ON	OFF	OFF	ON
	--------	ON	OFF	ON	ON	OFF	ON	OFF
	--------	ON	OFF	ON	ON	OFF	ON	ON
	--------	ON	OFF	ON	ON	ON	OFF	OFF
	--------	ON	OFF	ON	ON	ON	OFF	ON
	--------	ON	OFF	ON	ON	ON	ON	OFF
	--------	ON	OFF	ON	ON	ON	ON	ON
	--------	ON	ON	OFF	OFF	OFF	OFF	OFF
	--------	ON	ON	OFF	OFF	OFF	OFF	ON
	--------	ON	ON	OFF	OFF	OFF	ON	OFF
	--------	ON	ON	OFF	OFF	OFF	ON	ON
	--------	ON	ON	OFF	OFF	ON	OFF	OFF
	--------	ON	ON	OFF	OFF	ON	OFF	ON
	--------	ON	ON	OFF	OFF	ON	ON	OFF
	--------	ON	ON	OFF	OFF	ON	ON	ON
	--------	ON	ON	OFF	ON	OFF	OFF	OFF
	--------	ON	ON	OFF	ON	OFF	OFF	ON
	--------	ON	ON	OFF	ON	OFF	ON	OFF
	--------	ON	ON	OFF	ON	OFF	ON	ON
	--------	ON	ON	OFF	ON	ON	OFF	OFF
	--------	ON	ON	OFF	ON	ON	OFF	ON
	--------	ON	ON	OFF	ON	ON	ON	OFF

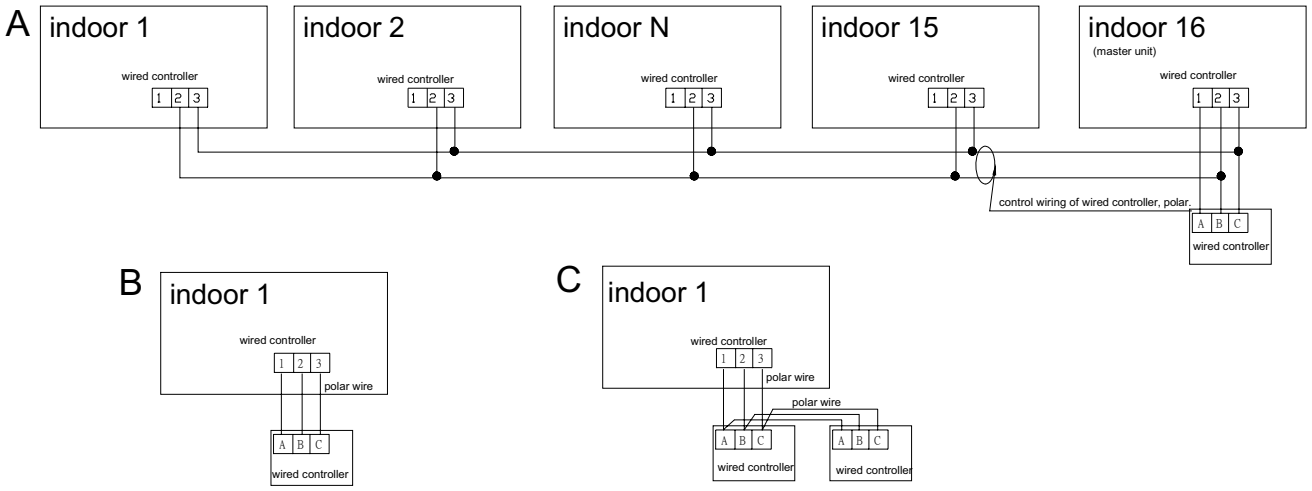
	--------	ON	ON	OFF	ON	ON	ON	ON
	--------	ON	ON	ON	OFF	OFF	OFF	OFF
	--------	ON	ON	ON	OFF	OFF	OFF	ON
	--------	ON	ON	ON	OFF	OFF	ON	OFF
	--------	ON	ON	ON	OFF	OFF	ON	ON
	--------	ON	ON	ON	OFF	ON	OFF	OFF
	--------	ON	ON	ON	OFF	ON	OFF	ON
	--------	ON	ON	ON	OFF	ON	ON	OFF
	--------	ON	ON	ON	OFF	ON	ON	ON
	--------	ON	ON	ON	ON	OFF	OFF	OFF
	--------	ON	ON	ON	ON	OFF	OFF	ON
	--------	ON	ON	ON	ON	OFF	ON	OFF
	--------	ON	ON	ON	ON	OFF	ON	ON
	--------	ON	ON	ON	ON	ON	OFF	OFF
	--------	ON	ON	ON	ON	ON	OFF	ON
	--------	ON	ON	ON	ON	ON	ON	OFF
128	--------	ON	ON	ON	ON	ON	ON	ON

Electrical functions of wired controller:

1.Function difference between master wired controller and slave one:

Contrastive items	Master wired controller	Slave wired controller
Function	All of functions	Only with below functions: ON/OFF, MODE, FAN SPEED, SET TEMP., SWING

2. Wiring connections of wired controller:



There are three methods to connection wired controller and the indoor units:

A. One wired controller can control max. up to 16 sets of indoor units, and 3 pieces of polar wire must connect the wired controller and the master unit (the indoor unit connected with wired controller directly), the others connect with the master unit through 2 pieces of polar wire.

B. One wired controller controls one indoor unit, and the indoor unit connects with the wired controller through 3 pieces of polar wire.

C. Two wired controllers control one indoor unit. The wired controller connected with indoor unit is called master one, the other is called slave one. Master wired controller and indoor unit; master and slave wired controllers are all connected through 3 pieces of polar wire.

3. Communication wiring:

The wired controller is equipped with special communication wiring in the accessories. 3-core terminal (1-white 2-yellow 3-red) is connected with the

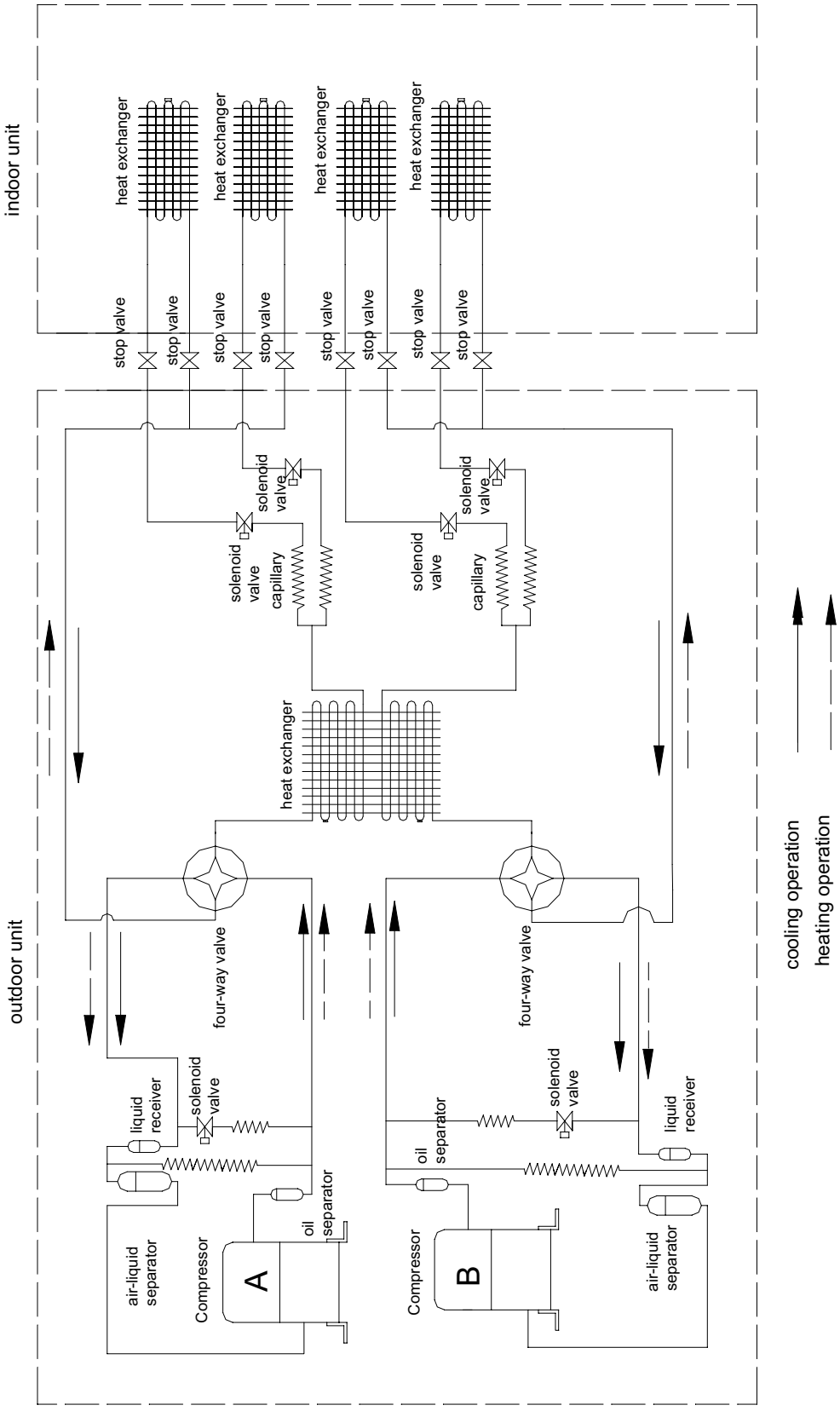
terminal A、B、C of wired controller respectively.

The communication wiring is 4 meter long; if the actual length is more than it, please distribute wiring according to below table:

Communication wiring length（m）	Dimensions of wiring
<100	0.3mm^{2}X3-core shielded wire
≥100 and <200	0.5mm^{2}X3-core shielded wire
≥200 and <300	0.75mm^{2}X3-core shielded wire
≥300 and <400	1.25mm^{2}X3-core shielded wire
≥400 and <600	2mm^{2}X3-core shielded wire

※ One side of the shielded sheet of communication wire must be earthed.

Refrigerant Diagram

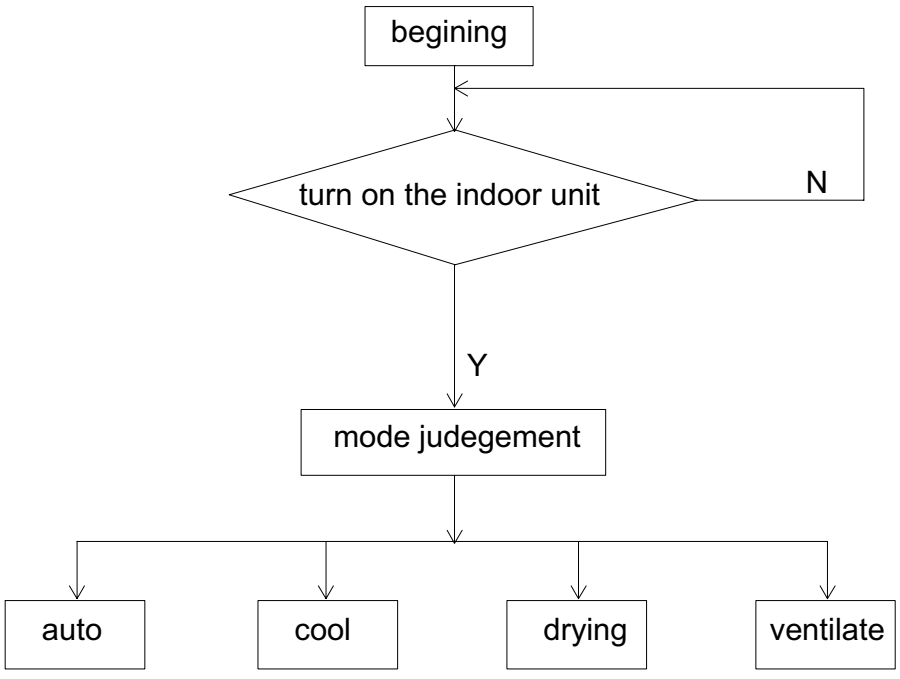


Electrical Control Functions

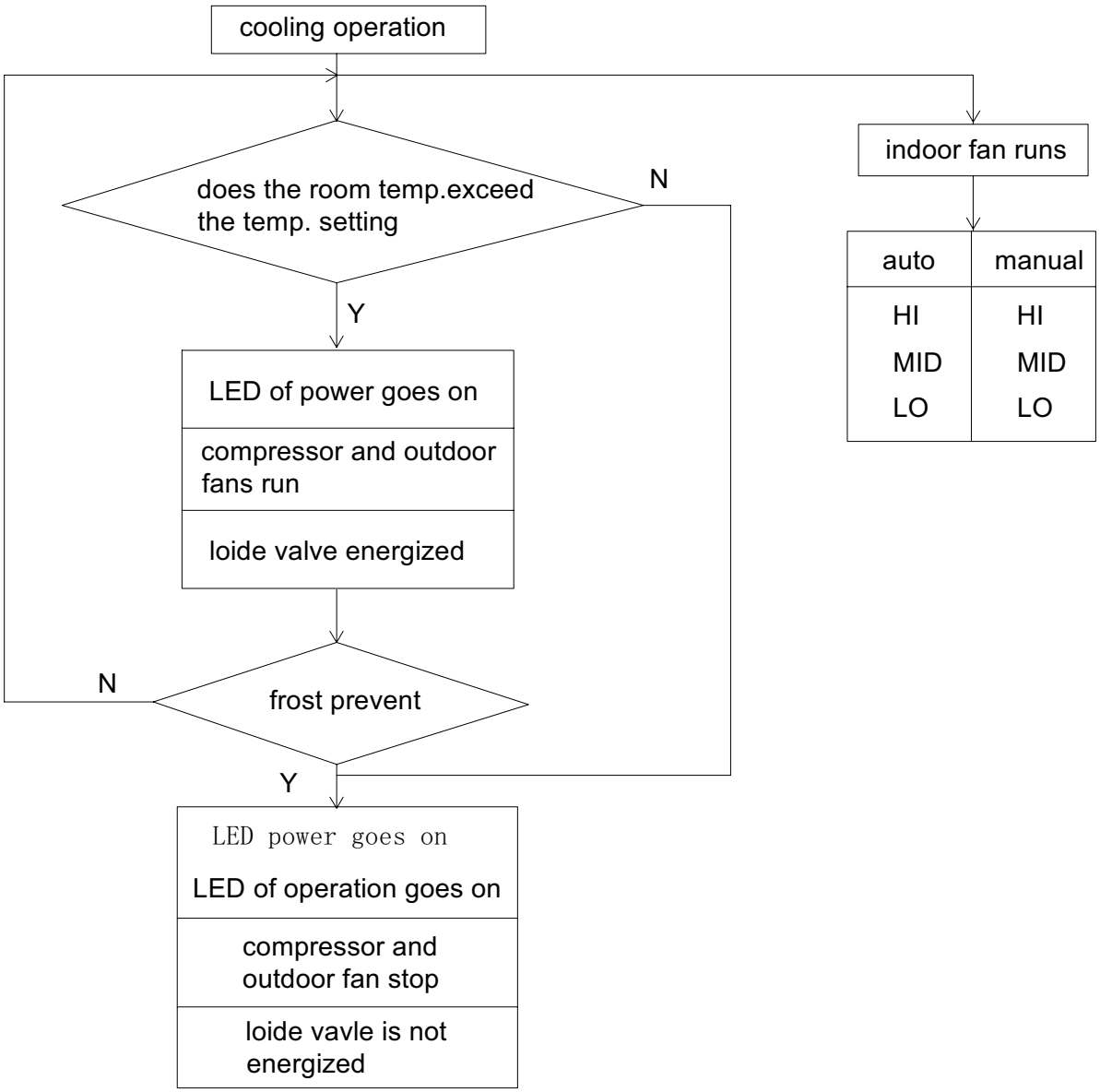
NO	Function	Description of function
1	Auto	Over 23℃ cooling and set 26℃ less 23℃
2	Cooling	Set temperature between 16 ℃ and 30 ℃
3	Drying	Set temperature between 16 ℃ and 30 ℃
4	Fan	Temperature can not be adjusted
5	Emergence run	Over 23℃ cooling and set 26℃ less 23 ℃
6	Test run	Set force cooling
7	Fan speed adjustment	Auto, high, middle, low four lever fan speeds
8	Timer switch	24hours timer on, timer off, on-off, off-on
9	Sleep run	Equal to 8 hours timer on, but temperature adjustment is more comfortable
10	Anit-freezing of indoor unit	When cooling in low ambient temperature to defrost for the outdoor unit in order to make the system have a better efficiency

Flow Chart for Operation

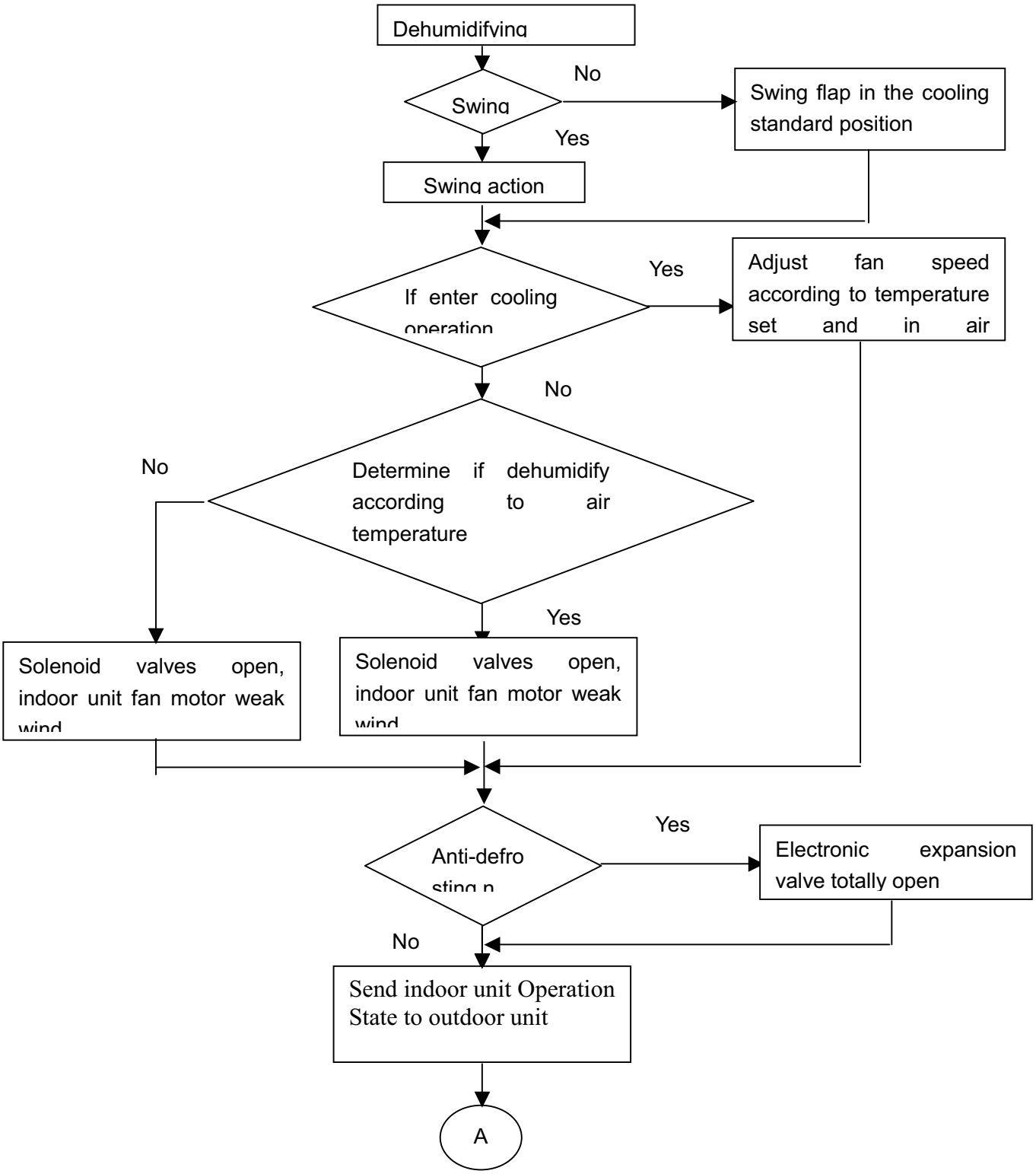
1) Turn on/off unit



2) Cooling operation



3) Dehumidifying operation



10. Diagnostic information (trouble shooting)

10.1 Failure code

Resumable failures are marked with " ⊙ ", the others are not resumable failures.

Resumable failure will disappear when the failure is eliminated and its failure code will disappear automatically within 30 seconds. But the other failure code will disappear only after the unit starts up once again.

When failure occurs, the unit only can receive "OFF" signal from the controller. And when the unit is shut off, the failure code will disappear.

The chart (for cassette type and duct type) please refer to the information on Page 72

For wall mounted type and the console type unit, their failure code is below:

Failure description	Code on wired controller (YR-E06)	Flash times of indoor receiver board
Room temp. sensor abnormal ⊙	F1	Power LED flashes 1 time
Indoor coil temp. sensor abnormal (liquid pipe) ⊙	F2	Power LED flashes 2 times
Refrigerant system abnormal	F3	Power LED flashes 3 times
Indoor coil temp. sensor abnormal (gas pipe) ⊙	F4	Power LED flashes 4 times
High pressure abnormal (outdoor)	F5	Power LED flashes 5 times
Drainage abnormal ⊙	F6	Power LED flashes 6 times
Communication between indoor and wired controller⊙	F7	Power LED flashes 7 times
Indoor fan motor abnormal (up)		Power LED flashes 8 times
Indoor fan motor abnormal (down)		Power LED flashes 9 times
3 phase abnormal	E1	Running LED flashes once
Low pressure abnormal (outdoor)	E2	Running LED flashes twice
Communication between indoor and outdoor abnormal⊙	E3	Running LED flashes 3 times
Compressor overheat	E4	Running LED flashes 4 times
CT current abnormal	E5	Running LED flashes 5 times
Outdoor ambient temp. sensor abnormal ⊙	E6	Running LED flashes 6 times
Outdoor coil pipe temp. sensor abnormal⊙	E7	Running LED flashes 7 times
Outdoor suction temp. sensor abnormal ⊙	EA	Running LED flashes 10 times
Abnormal modes running ⊙	EC	Running LED flashes 11 times
Outdoor discharging temp. sensor abnormal ⊙	ED	Running LED flashes 12 times
Indoor EEPROM abnormal	EE	Running LED flashes 14 times

Only for ASXABAA:**

Failure code of wall mounted units

No.	Failure contents	Flash times of timer lamp on indoor unit
1	Room temperature sensor problem	1
2	Pipe temperature sensor problem of indoor unit	2
3	Fan motor problem of indoor unit	3
4	High pressure problem of the system	17
5	Communication problem between indoor and outdoor unit (Alarmed by indoor unit)	5
6	Low pressure problem of the system	18
7	Over heat of compressor	9
8	CT current abnormal	21
9	Outdoor ambient temperature sensor problem	11
10	Outdoor pipe temperature sensor problem	10
11	Discharge temperature sensor problem on outdoor unit	12
12	Working mode changing	Buzzer sounds 2 times
13	EEPROM failure on indoor PCB	7
14	Communication problem between indoor and outdoor unit (Alarmed by outdoor unit)	19
15	EEPROM failure on outdoor PCB	20

Trouble Shooting - Detailed for engineer

Malfunction flow chart: analyze and diagnose

If the air-condition fails to cooling or heating function and other functions, please check the system as follows:

1. Cooling

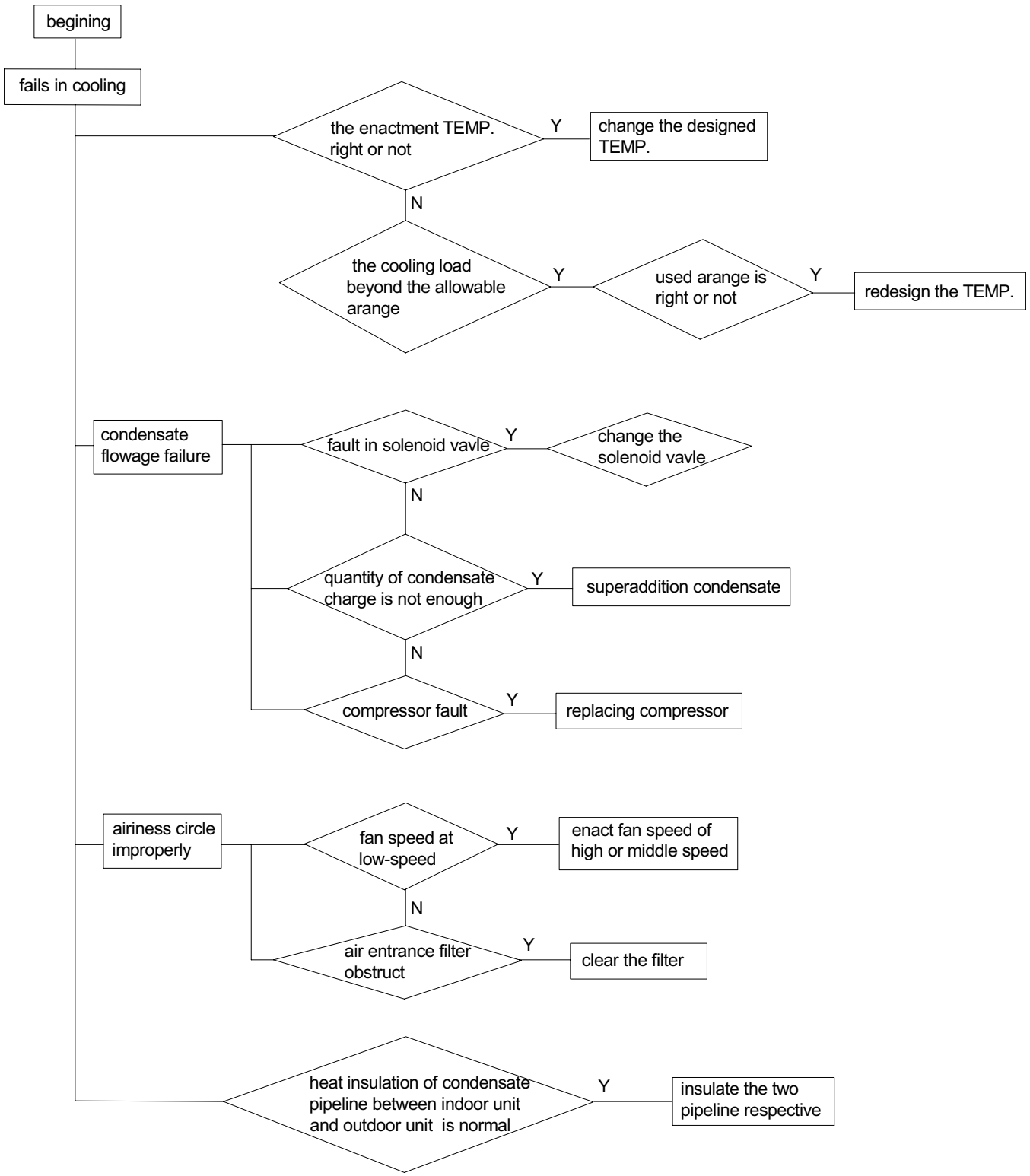


Figure 7-1

2. Malfunction of air-conditioner units

1) Fan of indoor unit faulty on abnormal functioning

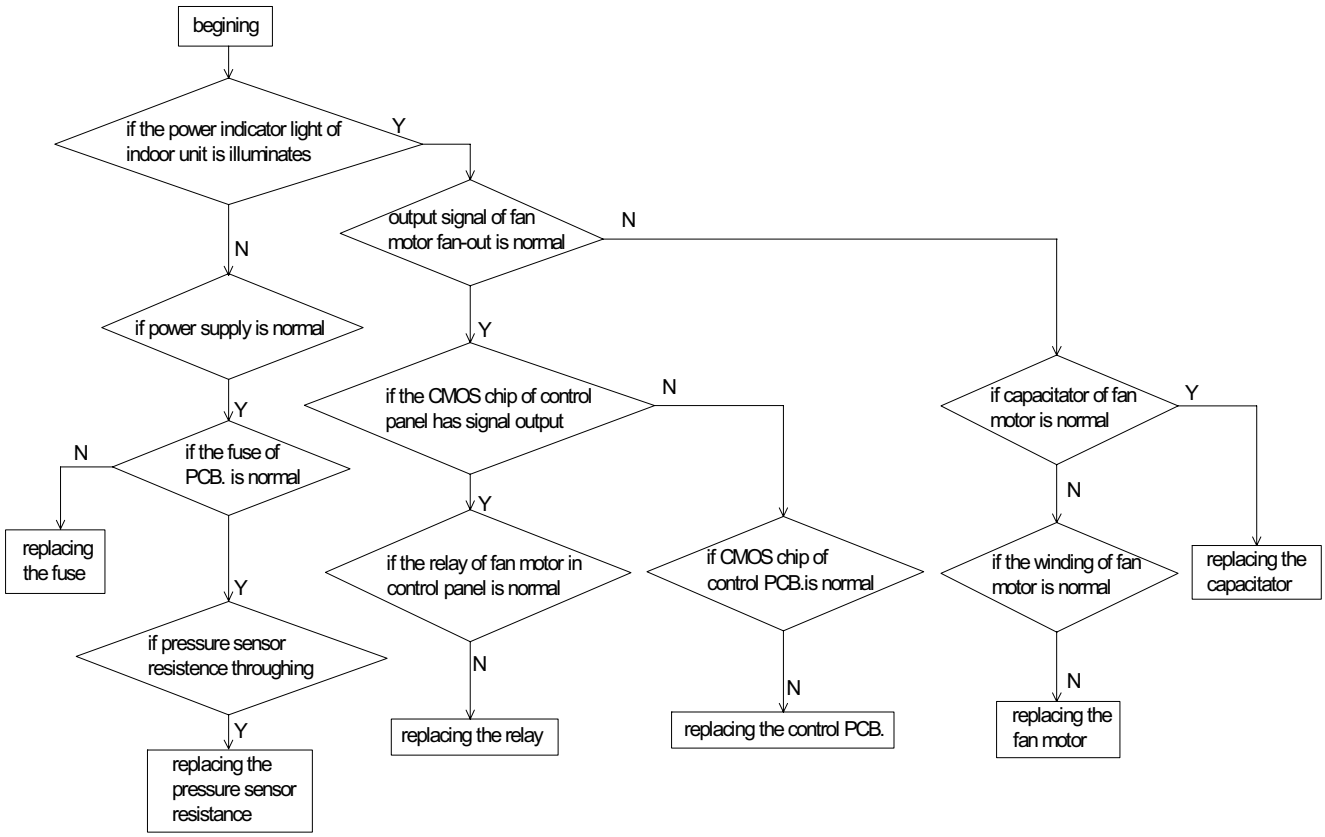


Figure 7-2

2) Fan of outdoor unit fault to operate

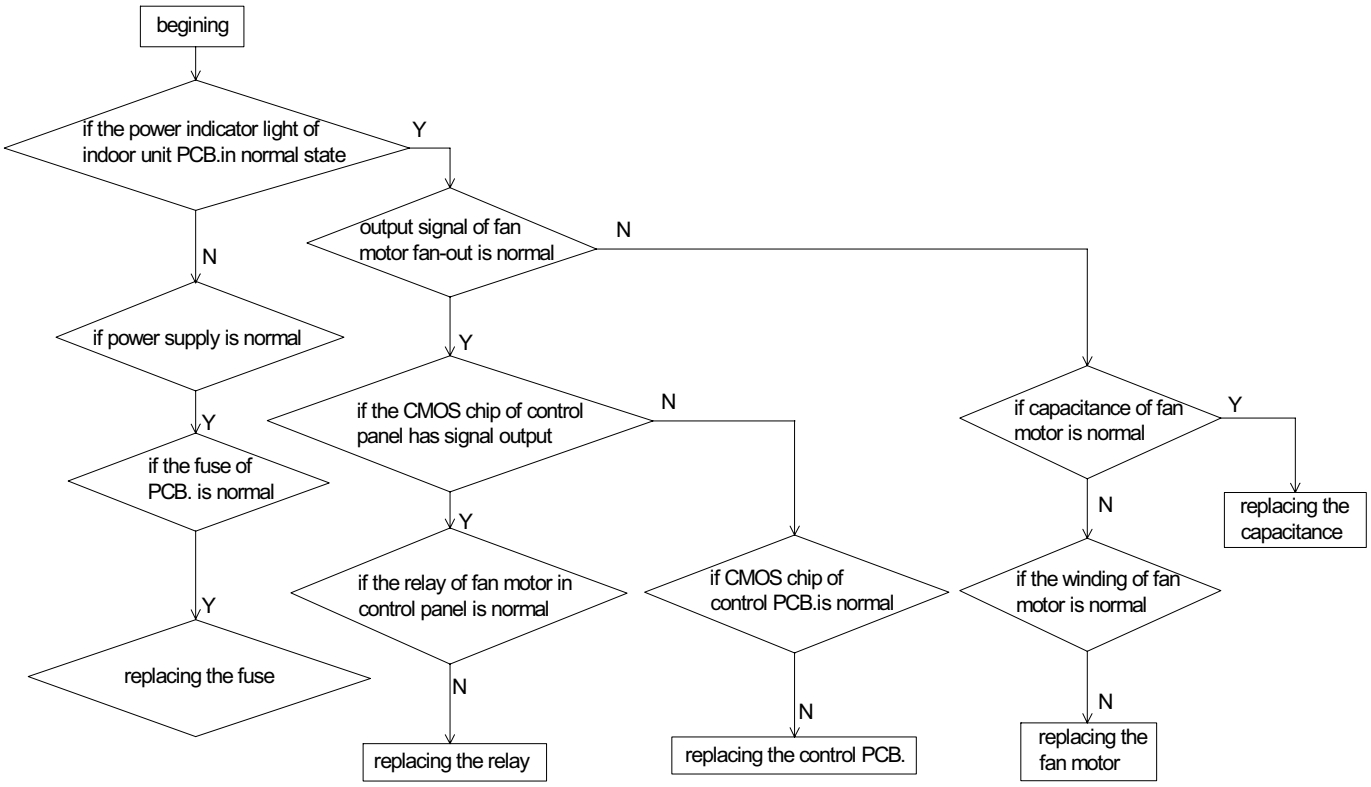


Figure 7-3

3) There is nothing on display of remote control organ, and the air-conditioner failure to operate

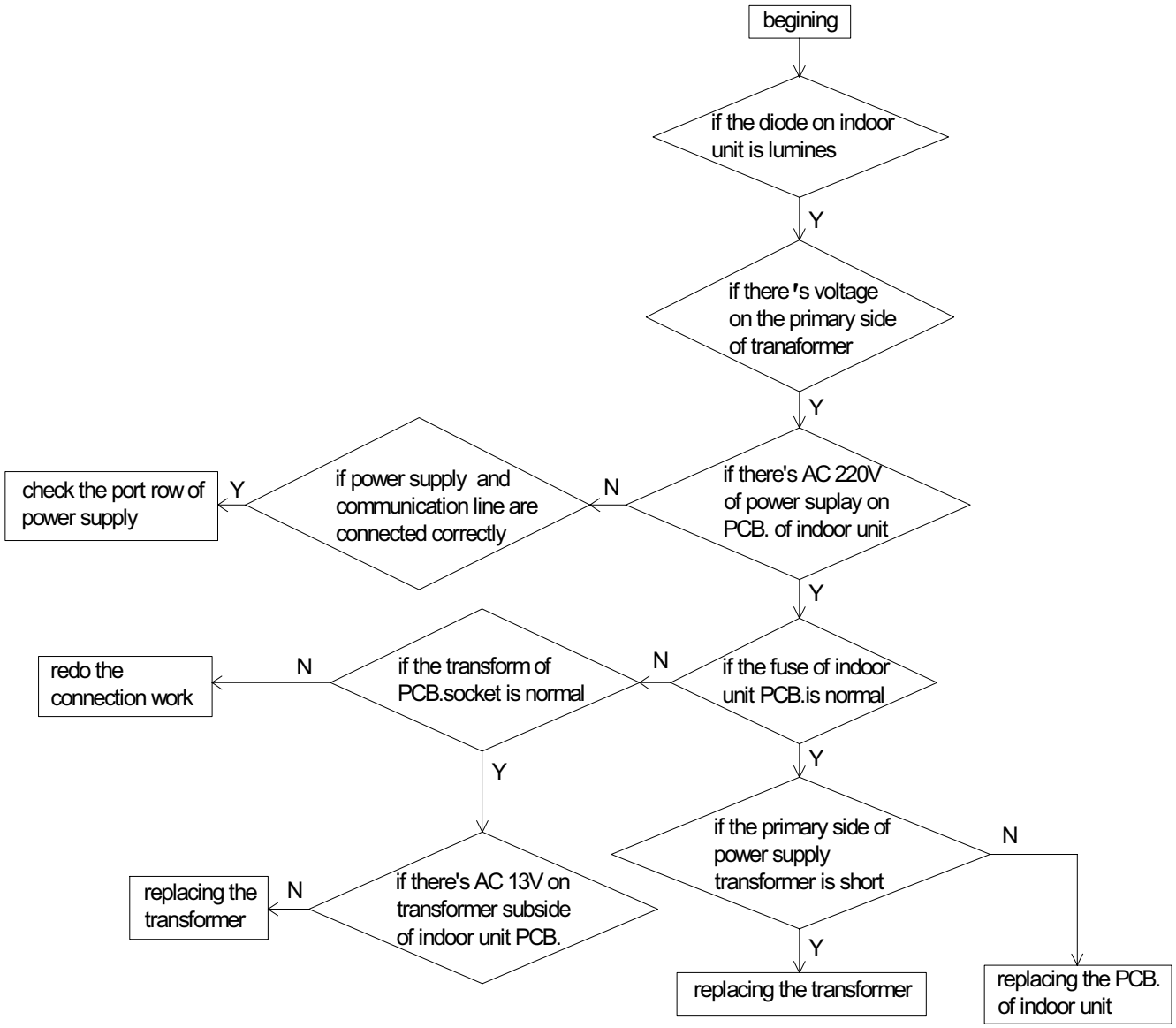
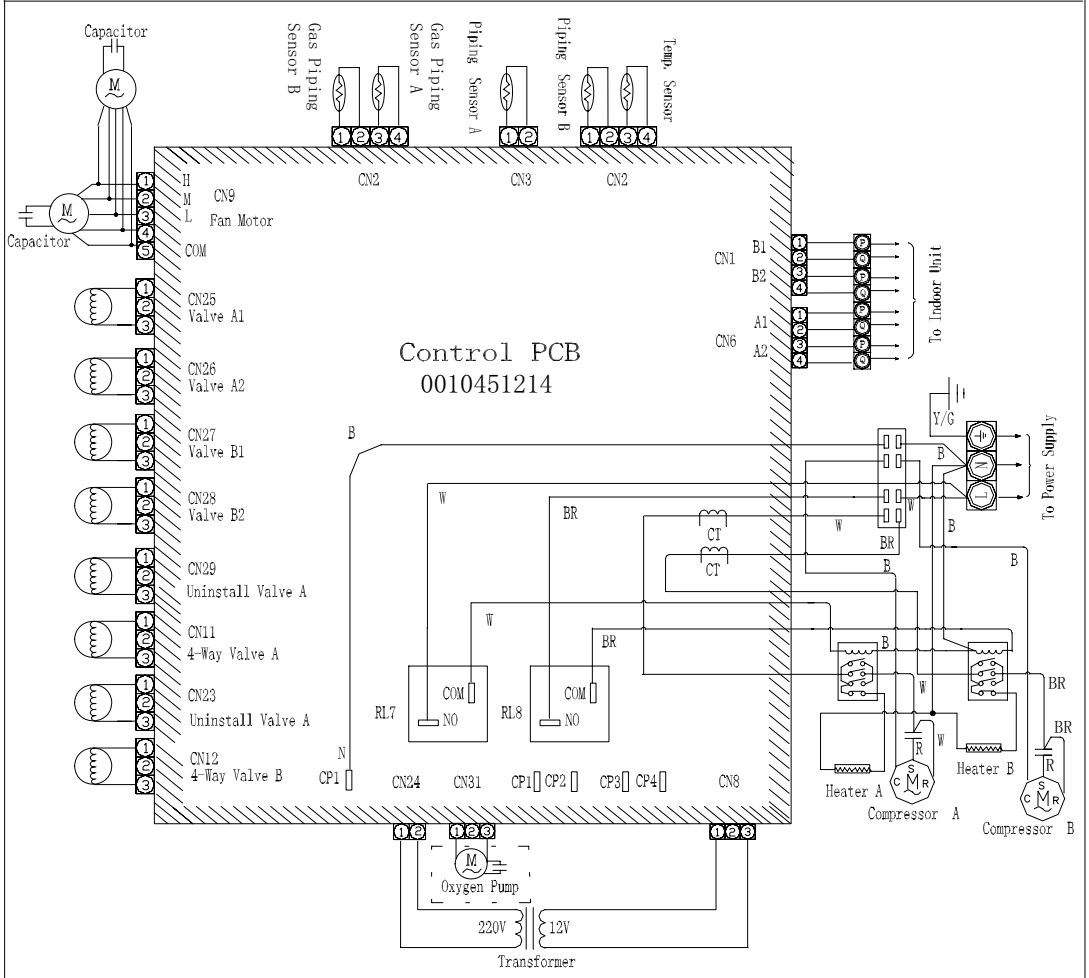

begining
if the diode on indoor unit is lumines
Y
if there's voltage on the primary side of tranaformer
Y
if there's AC 220V of power suplay on PCB. of indoor unit
N
if power supply and communication line are connected correctly
Y
check the port row of power supply
Y
if the fuse of indoor unit PCB.is normal
N
if the transform of PCB.socket is normal
N
redo the connection work
Y
if there's AC 13V on transformer subside of indoor unit PCB.
N
replacing the transformer
Y
if the primary side of power supply transformer is short
N
replacing the PCB. of indoor unit
Y
replacing the transformer

Figure 7-4

11. Electrical Data:

Outdoor unit:

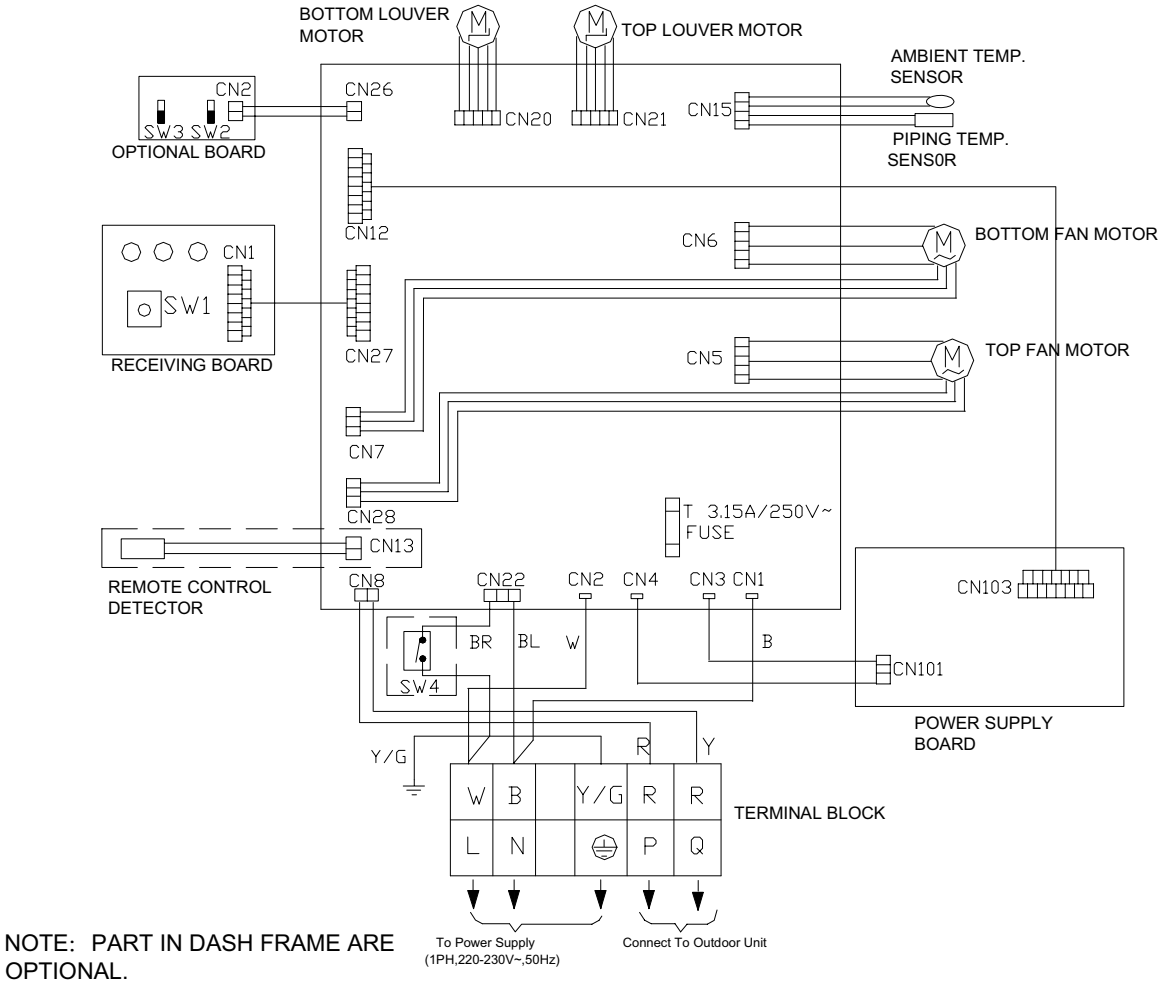
Outdoor wiring diagram



W:White BR:Brown B:Black BL:Blue R:Red Y/G:Yellow/Green	Note: 1.The communication terminal block to indoor cannot be connected to HT eletricity, or PCB will be damaged. 2.Heater is optional according to different outdoor unit. 3.Oxygen pump is optional.

Console type:

INDOOR WIRING DIAGRAM 0010573507



NOTE: PART IN DASH FRAME ARE OPTIONAL.

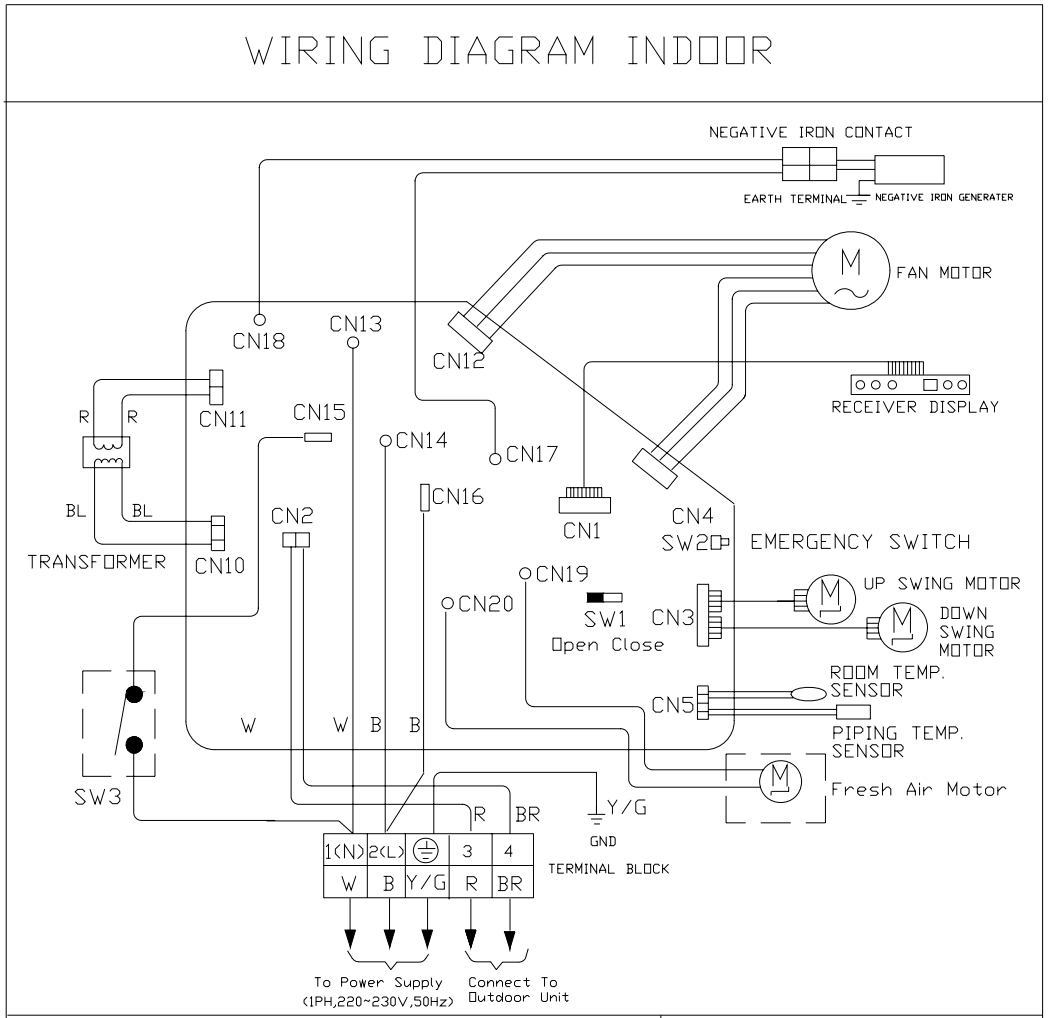
SW1 is an emergency key.
SW2 is used to choose the working satate of douwn PG motor.

SW3 and SW4 are used to choose the working state of the wired controller. The detailed information see the following:

SW3	SW4	Working state of the wire controller
1	1	If the controller power on, the indoor unit run according to the state on the controller;If the controller power off, the indoor unit run in the auto mode
1	0	Ignore the state on the controller and power off
0	0	Ignore the state on the controller and power off
0	1	The controller is able to be controlled

B : BLACK BL : BLUE
R : RED W : WHITE
Y/G: YELLOW/GREEN

Wall mounted type: AS122XCBAA, AS142XCBAA



SW1 and SW3 are used to choose the working state of the wire controller. The detailed information see the following:

SW1	SW3	Working state of the wire controller
1	1	if the controller power on, the indoor unit run according to the state on the controller; if the controller power off, the indoor unit run in the auto mode
1	0	Ignore the state on the controller and power off
0	0	Ignore the state on the controller and power off
0	1	The controller is able to be controlled

1-CLOSE 0-OPEN

NOTE: PARTS IN DASHED FRAME ARE OPTIONAL.

B : BLACK
R : RED
W : WHITE
Y/G: YELLOW/GREEN

Explanation:

For the wall mounted indoor unit AS072/092/122/142/182XCBAA, you can select the horse power and the indoor fan motor speed by adjusting the jumper. When out of factory, the jumper state will be as follow:

For AS072/092XCBAA PCB, jumper J27 is unconnected;

For AS122/142XCBAA PCB, jumper J26 is unconnected;

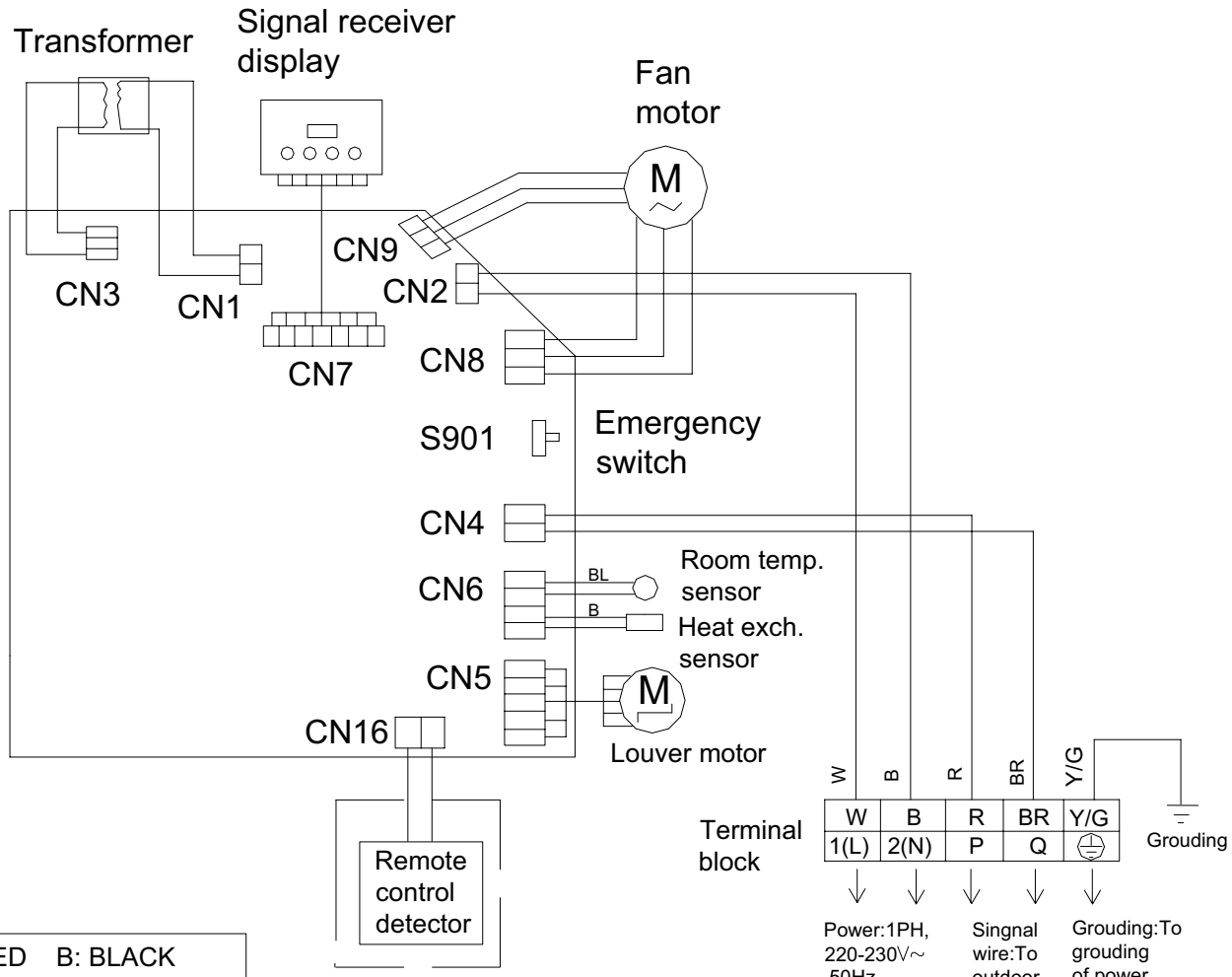
For AS182XCBAA PCB, jumper J25 is unconnected;

And jumper 24 is used to select the temperature compensation, if it is connected, the temp. compensation is available, while if it is unconnected, the temp. compensation function is cancelled.

Model: AS122XABAA

Wiring diagram of indoor unit

0010575394



R: RED B: BLACK

W: WHITE BL: BLUE

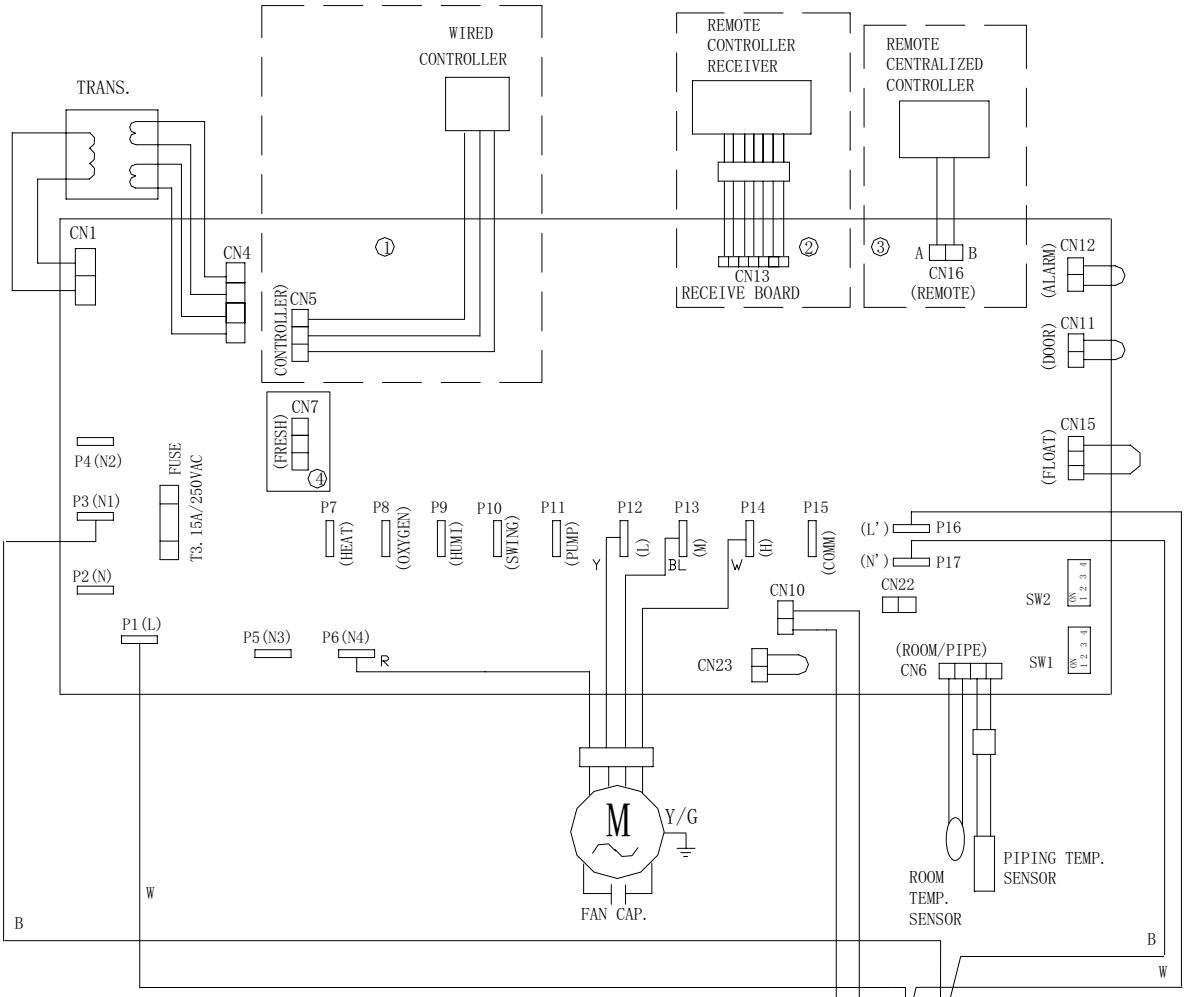
BR: BROWN

Y/G: YELLOW/GREEN

Note:Remote control detector is optional

ceiling concealed type

CIRCUIT DIAGRAM OF INDOOR UNIT 0010573647



W:WHITE B:BLACK R:RED
Y:YELLOW OR:ORANGE BL:BLUE
BR:BROWN Y/G:YELLOW/GREEN

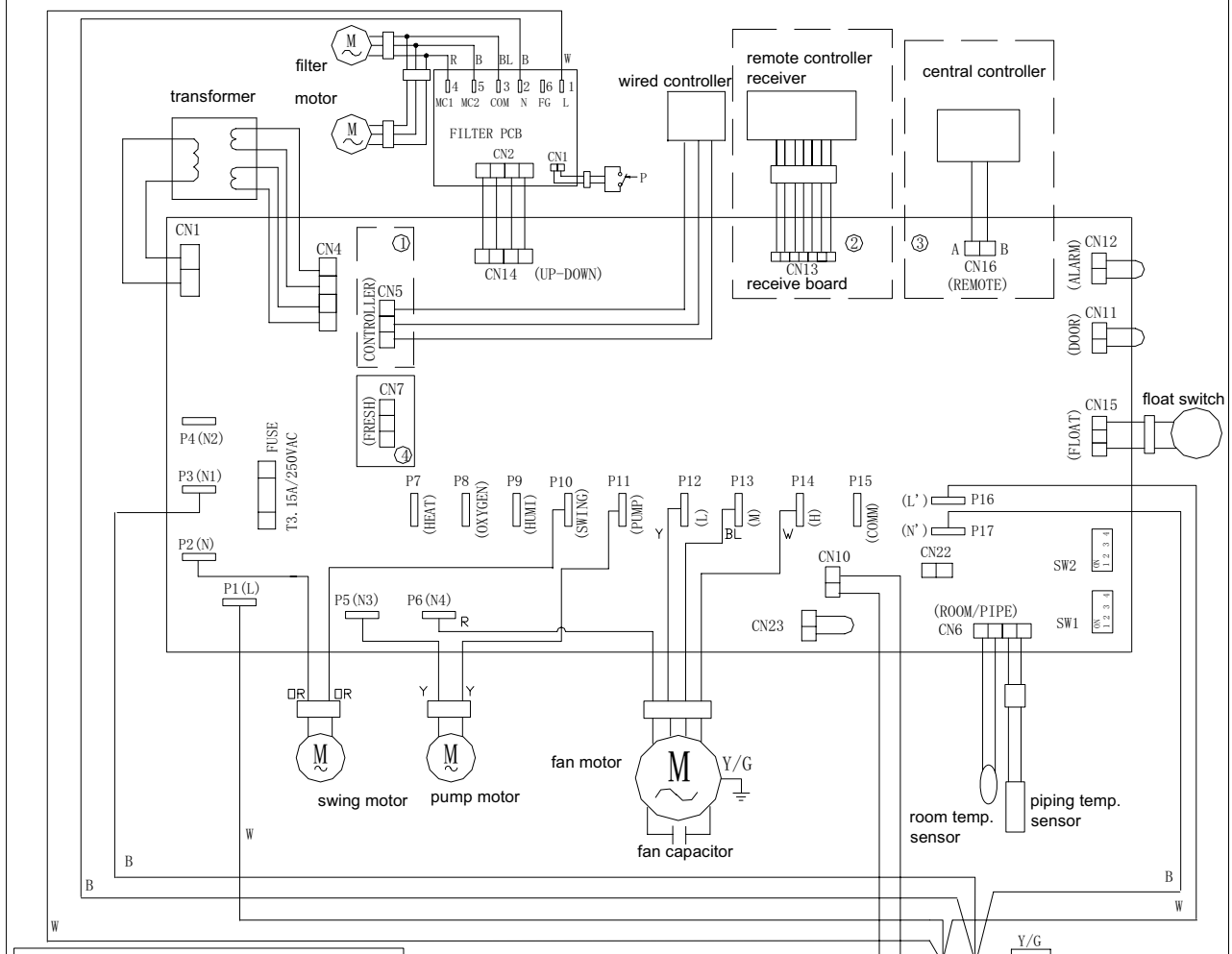
NOTE:

1. Parts ①② in dashed frame are optional.
2. Central controller ③ and fresh air ④ are optional.
3. P16 and P17 are used for room card function

cassette type

CIRCUIT DIAGRAM OF INDOOR UNIT

0010573646

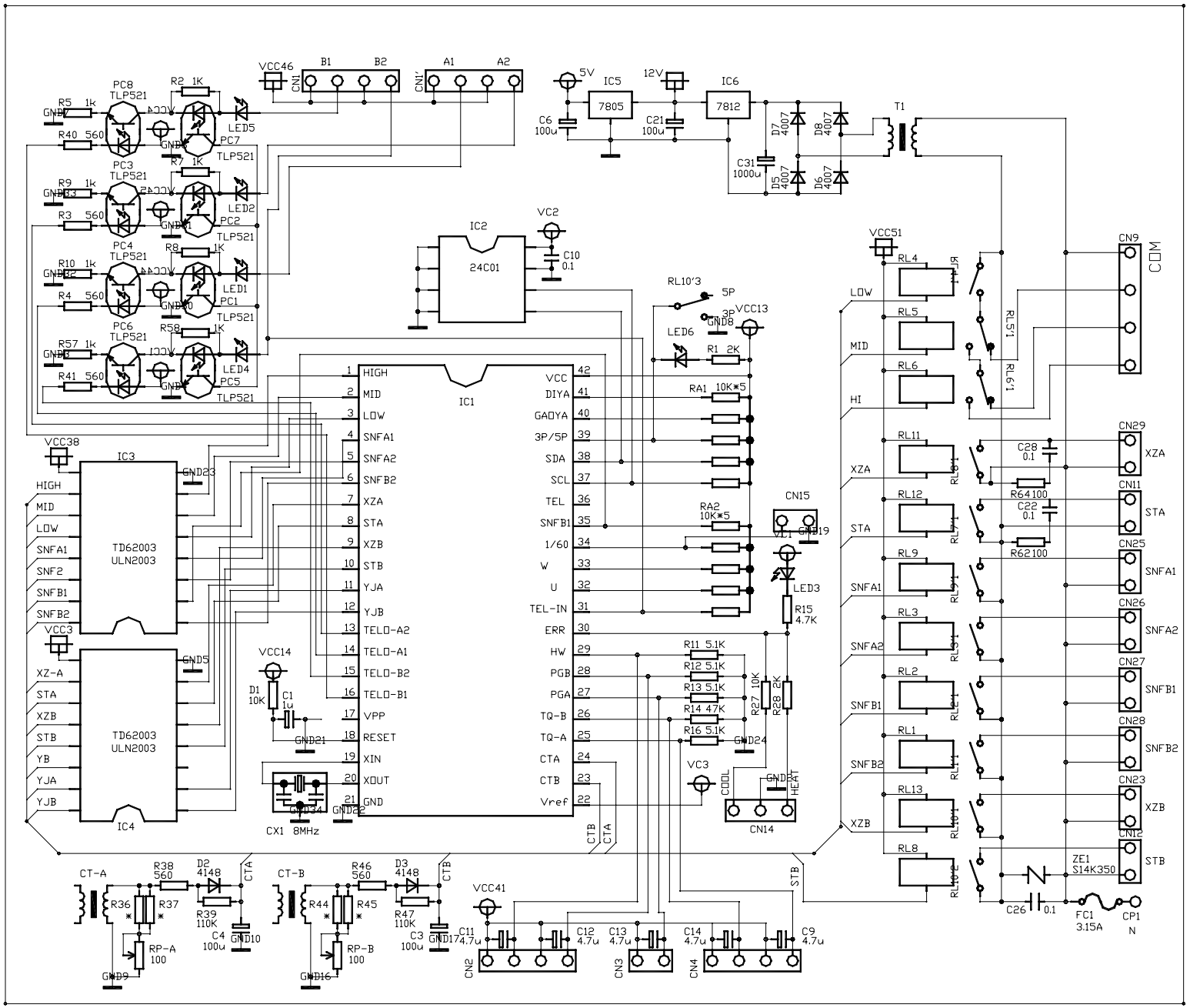


W:WHITE B:BLACK R:RED
Y:YELLOW OR:ORANGE BL:BLUE
BR:BROWN Y/G:YELLOW/GREEN

NOTE:

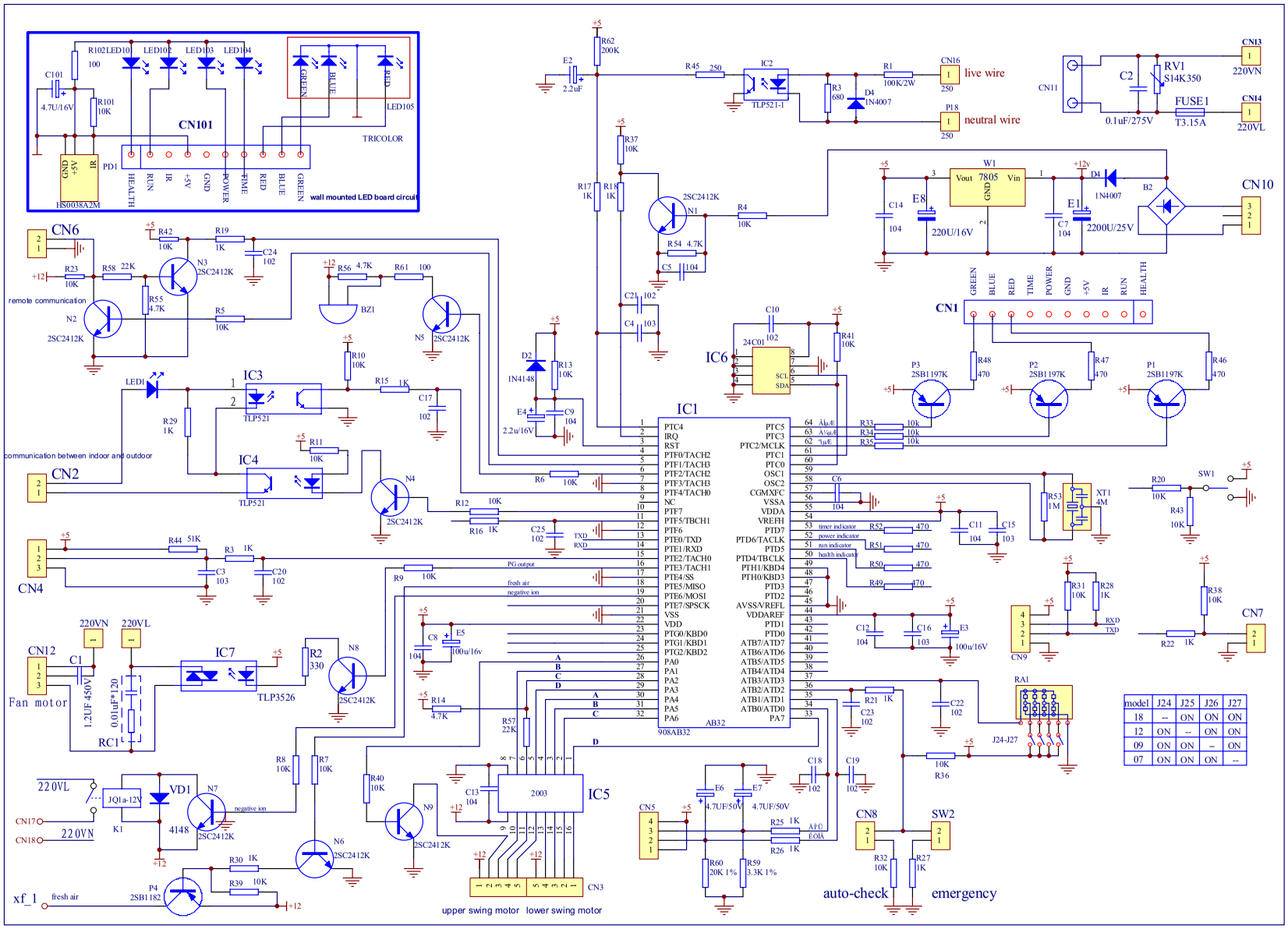
1. Parts①②in dashed frame are factory optional .
2. Central controller ③ and fresh air ④ are optional.
3. P16 and P17 are used for room card function

Outdoor unit wiring circuit:



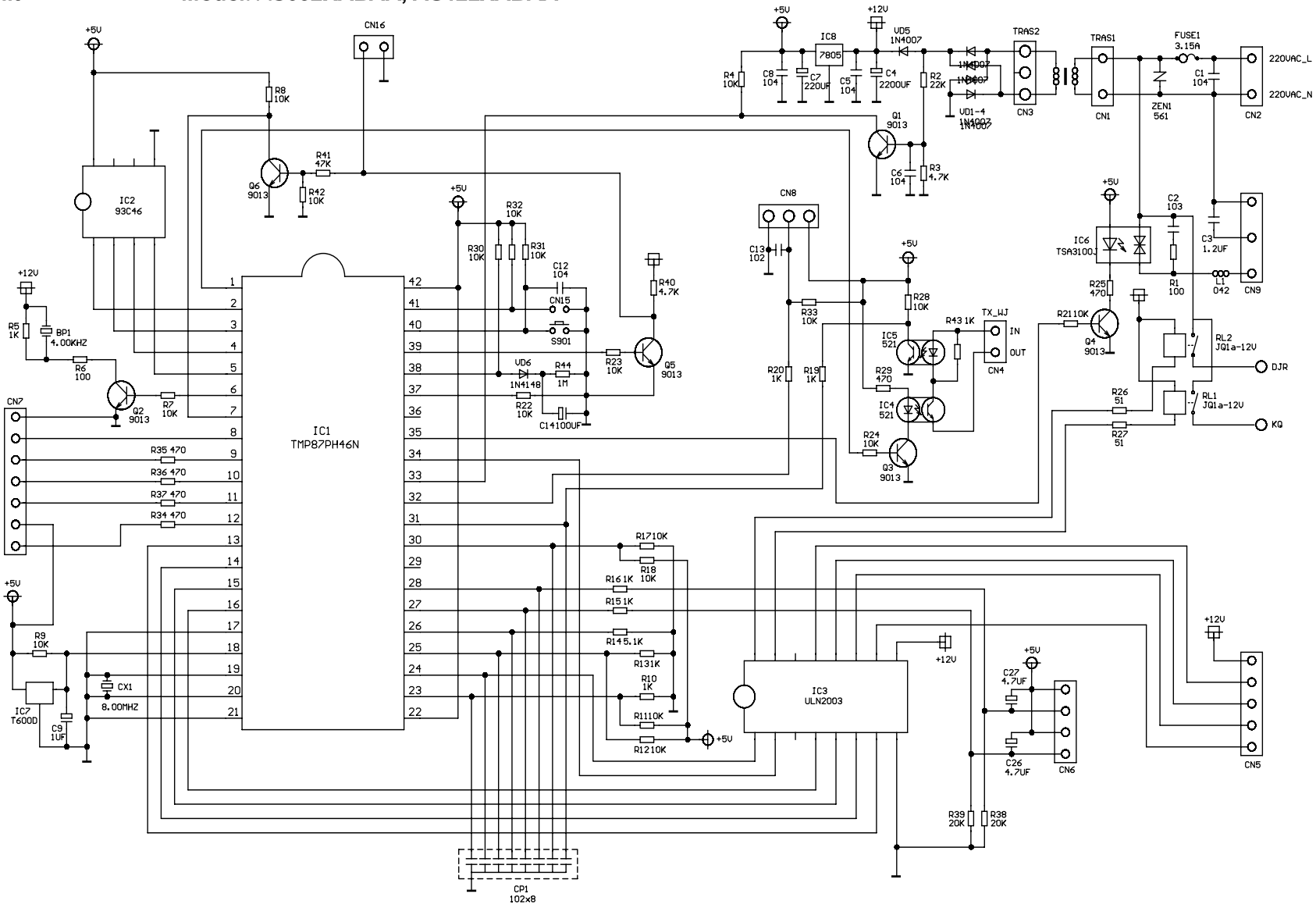
Circuit diagram:

Wall mounted type:AS122XCBAA, AS142XCBAA

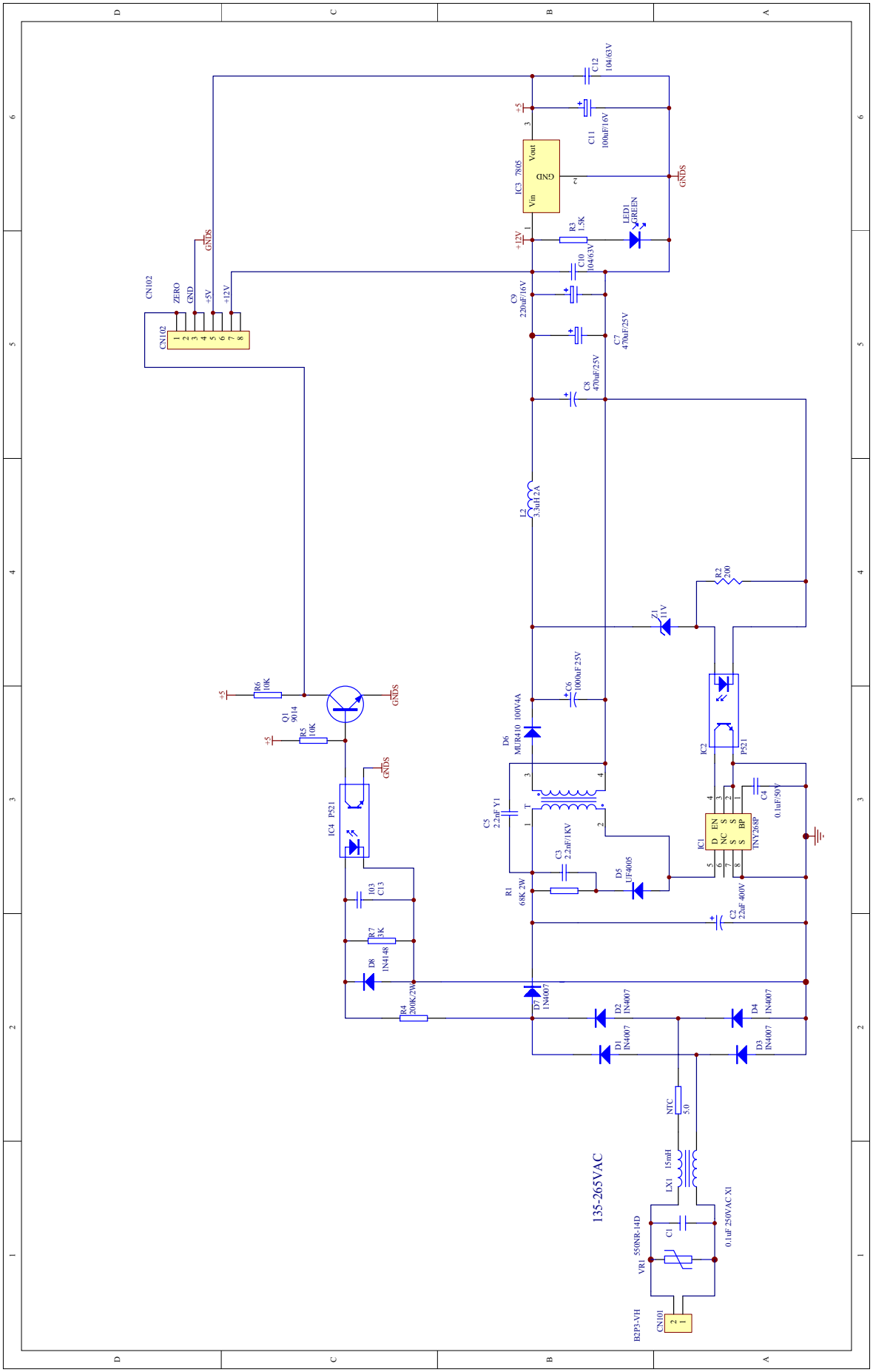


Circuit Diagram

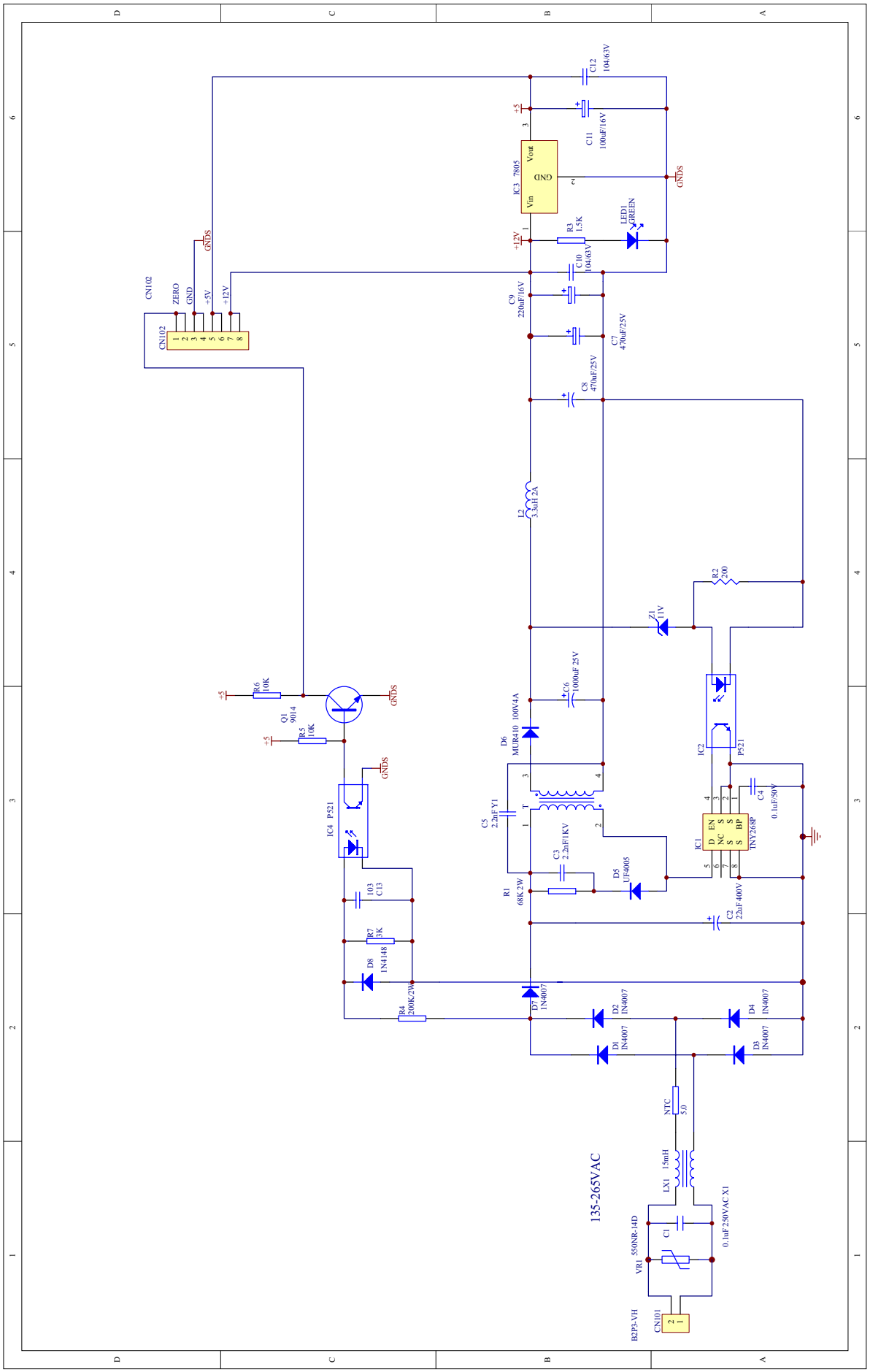
Indoor unit **Model**: AS**092XABAA, AS122XABAA**



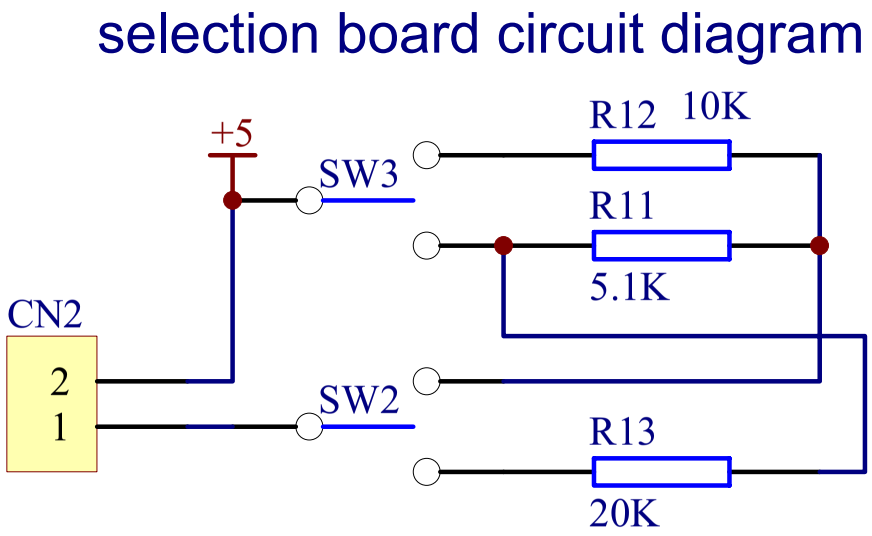
Console type (power board):

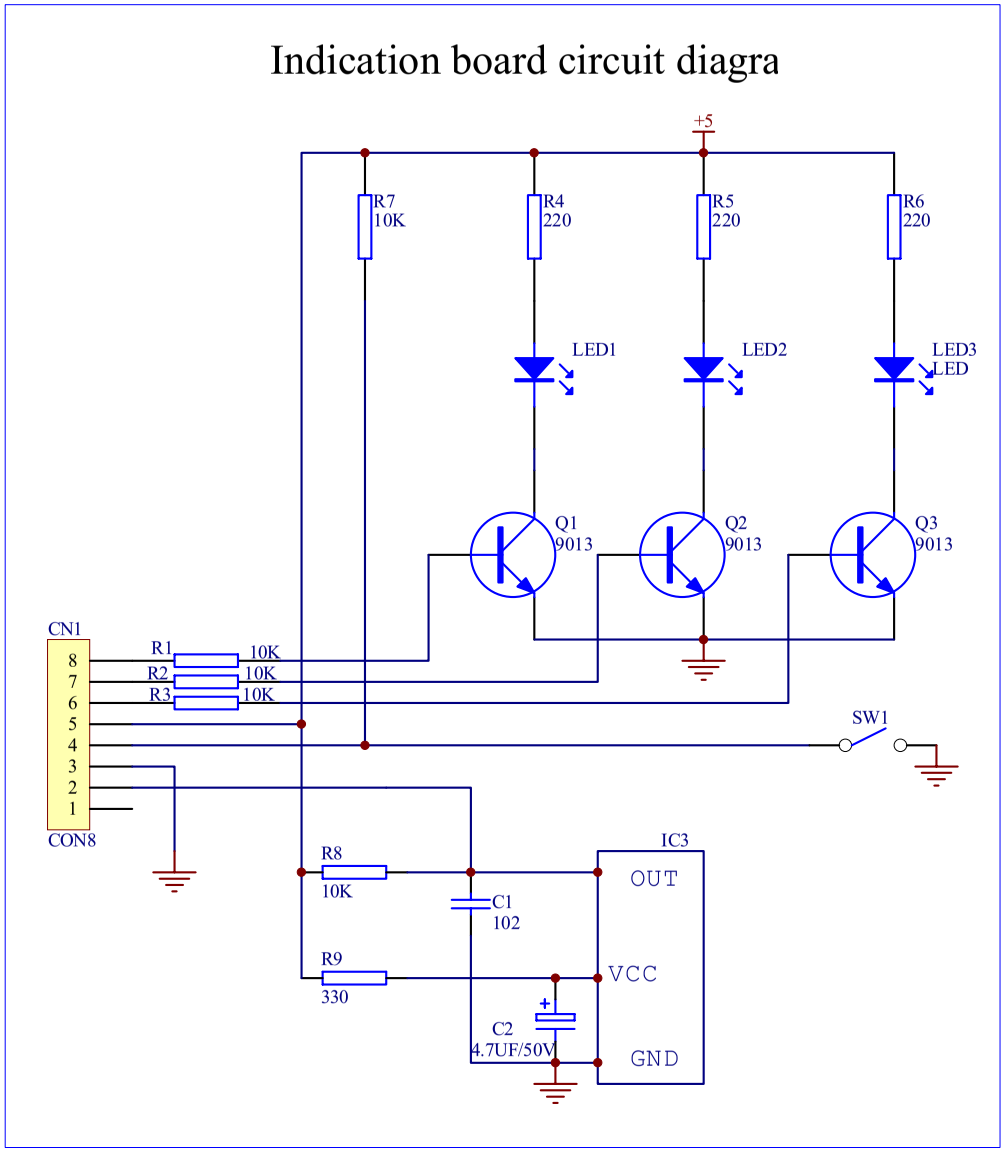


Console type (control board):

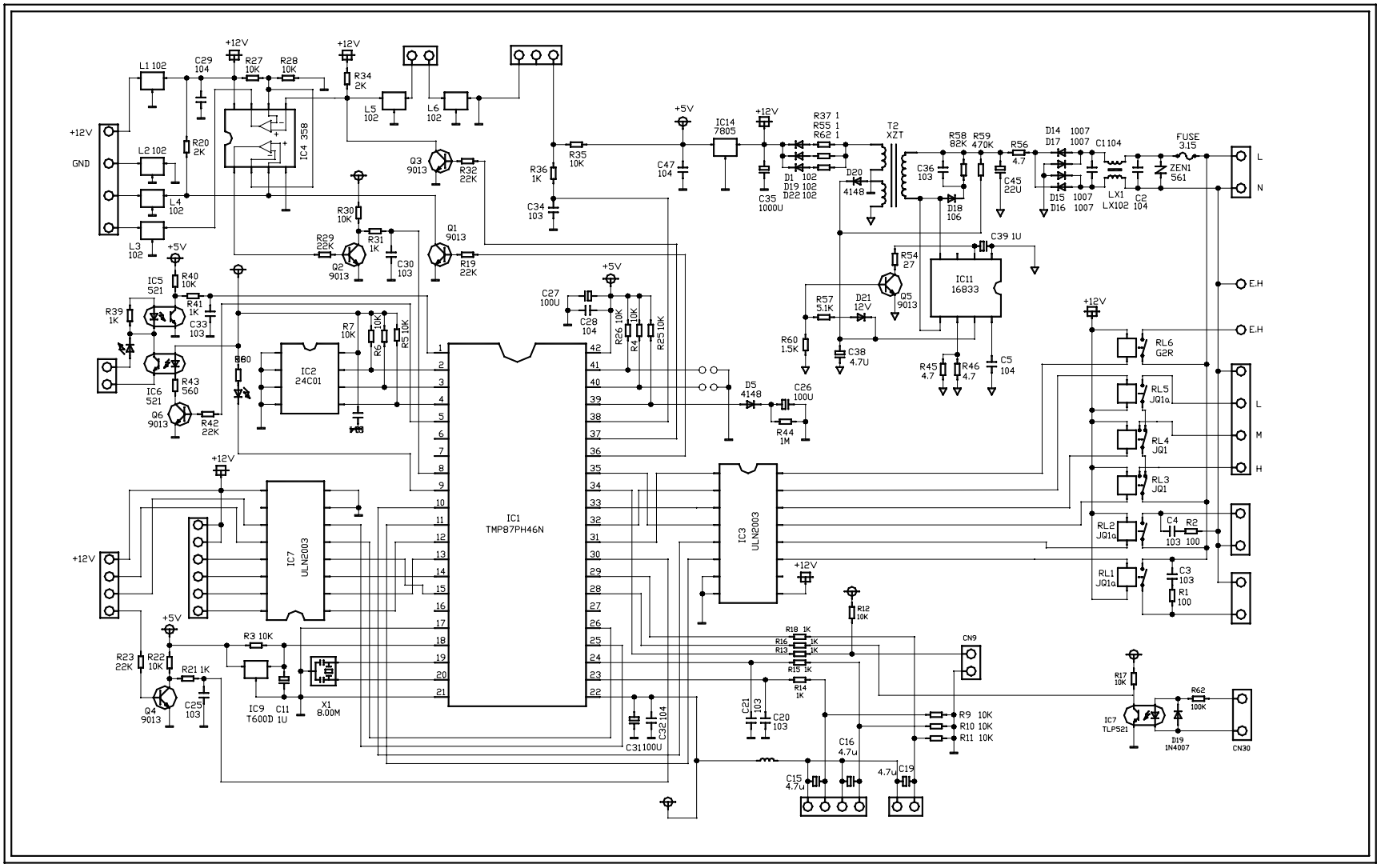


Console type (select board):



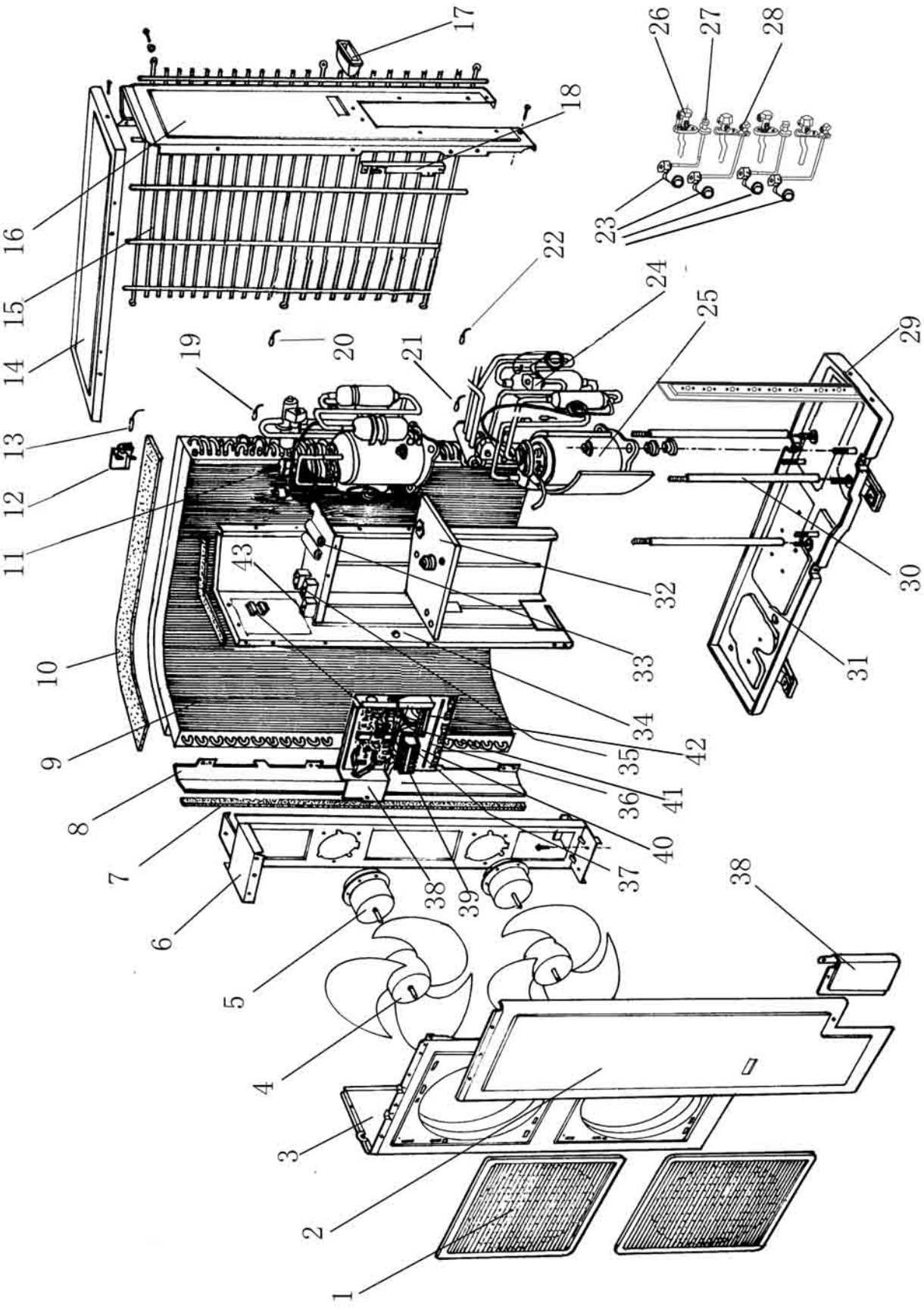


Cassette type and ceiling concealed type:



Exploded views:

Outdoor unit:



Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	001A0100122	Front guard assy	2	AU422XIBAA	0.0000%	0.0000%	X
2	001A1301971	Plate for maintain	1	AU422XIBAA	0.0000%	0.0000%	X
3	001A1301640	Front Panel(left)	1	AU422XIBAA	0.0000%	0.0000%	X
4	001A5402022	Axial fan	2	AU422XIBAA	0.0200%	0.0240%	*
5	001A3000201	Fan motor	2	AU422XIBAA	0.0200%	0.0240%	*
6	001A0100498	Motor mounting plate	1	AU422XIBAA	0.0000%	0.0000%	X
7	001A17421215	PE	1	AU422XIBAA	0.0000%	0.0000%	X
8	001A1301469	Fixing plate	1	AU422XIBAA	0.0000%	0.0000%	X
9	0010751102	Condenser assy	1	AU422XIBAA	0.0000%	0.0000%	X
10	001A17341206	Damping pad	1	AU422XIBAA	0.0000%	0.0000%	X
11	001A2500094	coil A of solenoid valve	1	AU422XIBAA	0.0100%	0.0120%	*
12	001A5736055	clip for sensor	1	AU422XIBAA	0.0000%	0.0000%	X
13	0010451343	ambient temp. sensor	1	AU422XIBAA	0.0100%	0.0120%	
14	001A0100827	Top cover assy.	1	AU422XIBAA	0.0000%	0.0000%	X
15	001A0100767	Guard for heat exchanger	1	AU422XIBAA	0.0000%	0.0000%	X
16	001A0100494	Slide plate(right)	1	AU422XIBAA	0.0000%	0.0000%	X
17	001A1436160	Handle	1	AU422XIBAA	0.0000%	0.0000%	X
18	001A1301465	Fix plate	1	AU422XIBAA	0.0000%	0.0000%	X
19	0010450243	A system coil temp. sensor	1	AU422XIBAA	0.0200%	0.0240%	*
20	0010451343	B system coil temp. sensor	1	AU422XIBAA	0.0200%	0.0240%	*
21	0010450398	A system discharging temp. sensor	1	AU422XIBAA	0.0200%	0.0240%	*
22	0010451344	B system discharging temp. sensor	1	AU422XIBAA	0.0200%	0.0240%	*
23	0010450755	Solenoid valve coil	1	AU422XIBAA	0.0000%	0.0000%	X
23	0010450757	Solenoid valve coil	1	AU422XIBAA	0.0000%	0.0000%	X
23	0010451193	Solenoid valve coil	1	AU422XIBAA	0.0000%	0.0000%	X
23	0010451195	Solenoid valve coil	1	AU422XIBAA	0.0000%	0.0000%	X
24	001A2500095	Solenoid valve coil B	1	AU422XIBAA	0.0000%	0.0000%	X
25	0010701958	Compressor	2	AU422XIBAA	0.0600%	0.0720%	*
26	0010751055	(3-way)stop valve	1	AU422XIBAA	0.0000%	0.0000%	X
27	0010700252	(2-way)stop valve	1	AU422XIBAA	0.0000%	0.0000%	X
28	0010751056	(2-way)stop valve	1	AU422XIBAA	0.0000%	0.0000%	X
29	001A1301119	Valve plate	1	AU422XIBAA	0.0000%	0.0000%	X
30	001A13011200	compressor splint	1	AU422XIBAA	0.0000%	0.0000%	X
31	0010151600	bottom plate	1	AU422XIBAA	0.0000%	0.0000%	X
32	0010150090	compressor supporting plate	1	AU422XIBAA	0.0000%	0.0000%	X
33	001A3600030	running capacitor	2	AU422XIBAA	0.2000%	0.2400%	*
34	001A0100496	partial plate	1	AU422XIBAA	0.0000%	0.0000%	X

35	001A3900161	AC contactor	2	AU422XIBAA	0.2000%	0.2400%	*
36	0010150084	electric box (horizontal)	1	AU422XIBAA	0.0000%	0.0000%	X
37	001A3600018	fan capacitor	2	AU422XIBAA	0.2000%	0.2400%	*
38	0010150138	electric box (vertical)	1	AU422XIBAA	0.0000%	0.0000%	X
39	001A4000110	power wiring block	1	AU422XIBAA	0.0000%	0.0000%	X
40	0010451214	PCB	1	AU422XIBAA	0.2000%	0.2400%	*
41	0010450305	signal wiring block	1	AU422XIBAA	0.0000%	0.0000%	X
42	001A4000111	terminal block	1	AU422XIBAA	0.0000%	0.0000%	X
43	001A3800066	transformer	1	AU422XIBAA	0.2000%	0.2400%	X

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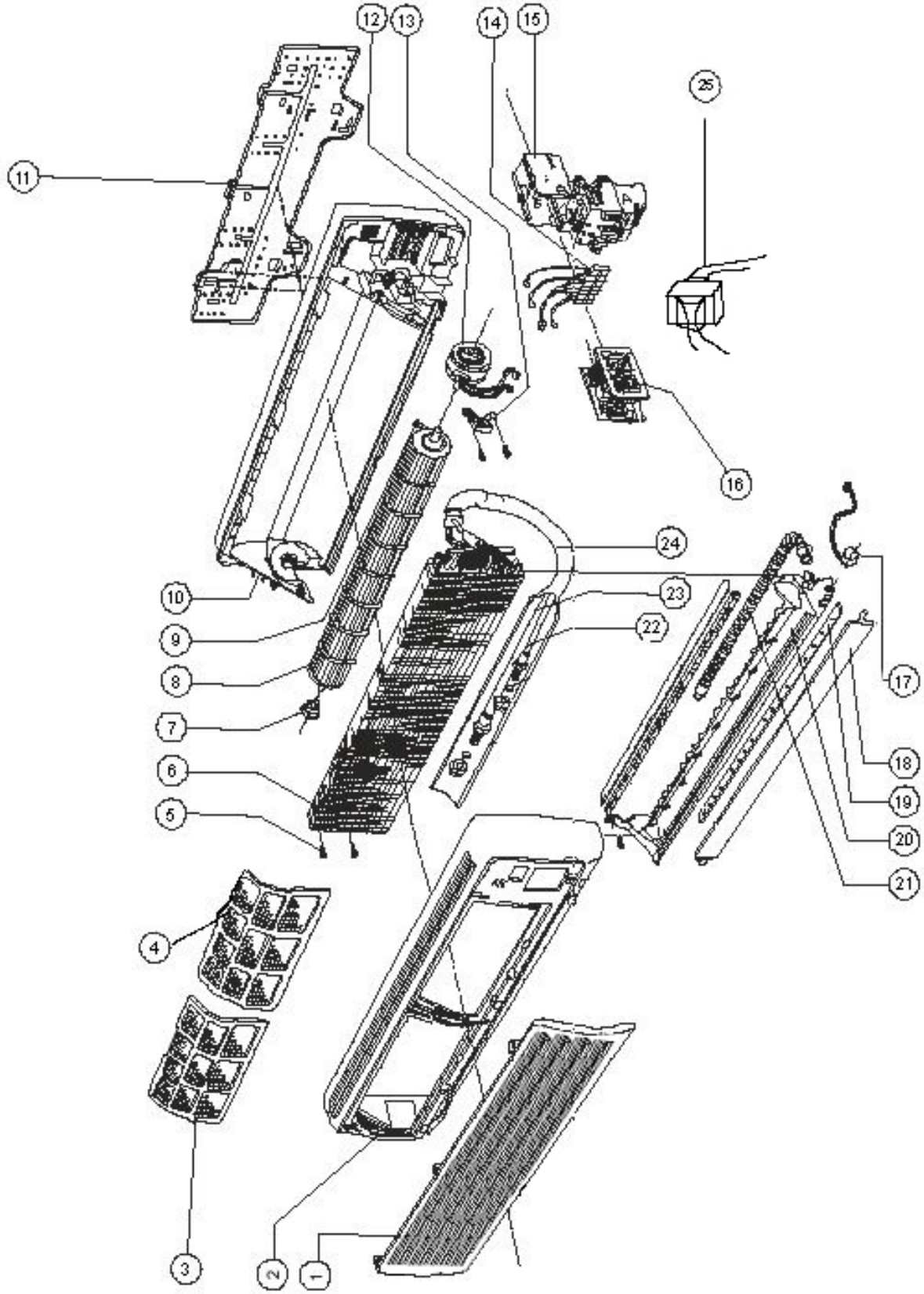
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Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	001A0100543	Front grill	1	AS122XABAA	0.00%	0.000%	×
2	001A0100943	Front panel	1	AS122XABAA	0.00%	0.000%	×
3	001A2400080	Air filter	1	AS122XABAA	0.00%	0.000%	×
4	001A2400080	Air filter	1	AS122XABAA	0.00%	0.000%	×
5	001A5313003	Screw	4	AS122XABAA	0.00%	0.000%	×
6	001A0400129	Heat exchanger	1	AS122XABAA	0.01%	0.012%	
7	001A0300005	Bearing	1	AS122XABAA	0.00%	0.000%	×
8	0010202227	Fan	1	AS122XABAA	0.02%	0.024%	*
9	001A5002088	Screw	1	AS122XABAA	0.00%	0.000%	×
10	001A0100276	Bottom plate	1	AS122XABAA	0.00%	0.000%	×
11	001A1301021	Mounting plate	1	AS122XABAA	0.00%	0.000%	×
12	001A3000088	Motor	1	AS122XABAA	0.02%	0.024%	*
13	001A1431717	Motor cover	1	AS122XABAA	0.00%	0.000%	×
14	001A4000122	terminal block	1	AS122XABAA	0.00%	0.000%	×
15	001A1431693	Control box	1	AS122XABAA	0.00%	0.000%	×
16	0010450610	PC board	1	AS122XABAA	0.04%	0.048%	*
17	001A3000008	Swing motor	2	AS122XABAA	0.02%	0.024%	*
18	001A1231140	Flap	1	AS122XABAA	0.00%	0.000%	×
19	001A2239006A	Cushion	1	AS122XABAA	0.00%	0.000%	×
20	001A0900104	Drain pan	1	AS122XABAA	0.00%	0.000%	×
21	001A0900011	Drain hose	1	AS122XABAA	0.00%	0.000%	×
22	001B0500412	Suction pipe assy	1	AS122XABAA	0.00%	0.000%	×
23	001B0500413	Discharge pipe tube	1	AS122XABAA	0.00%	0.000%	×
24	001A1741744	Heat insulation tube	1	AS122XABAA	0.00%	0.000%	×
25	001A3800065	transformer	1	AS122XABAA	0.02%	0.024%	*

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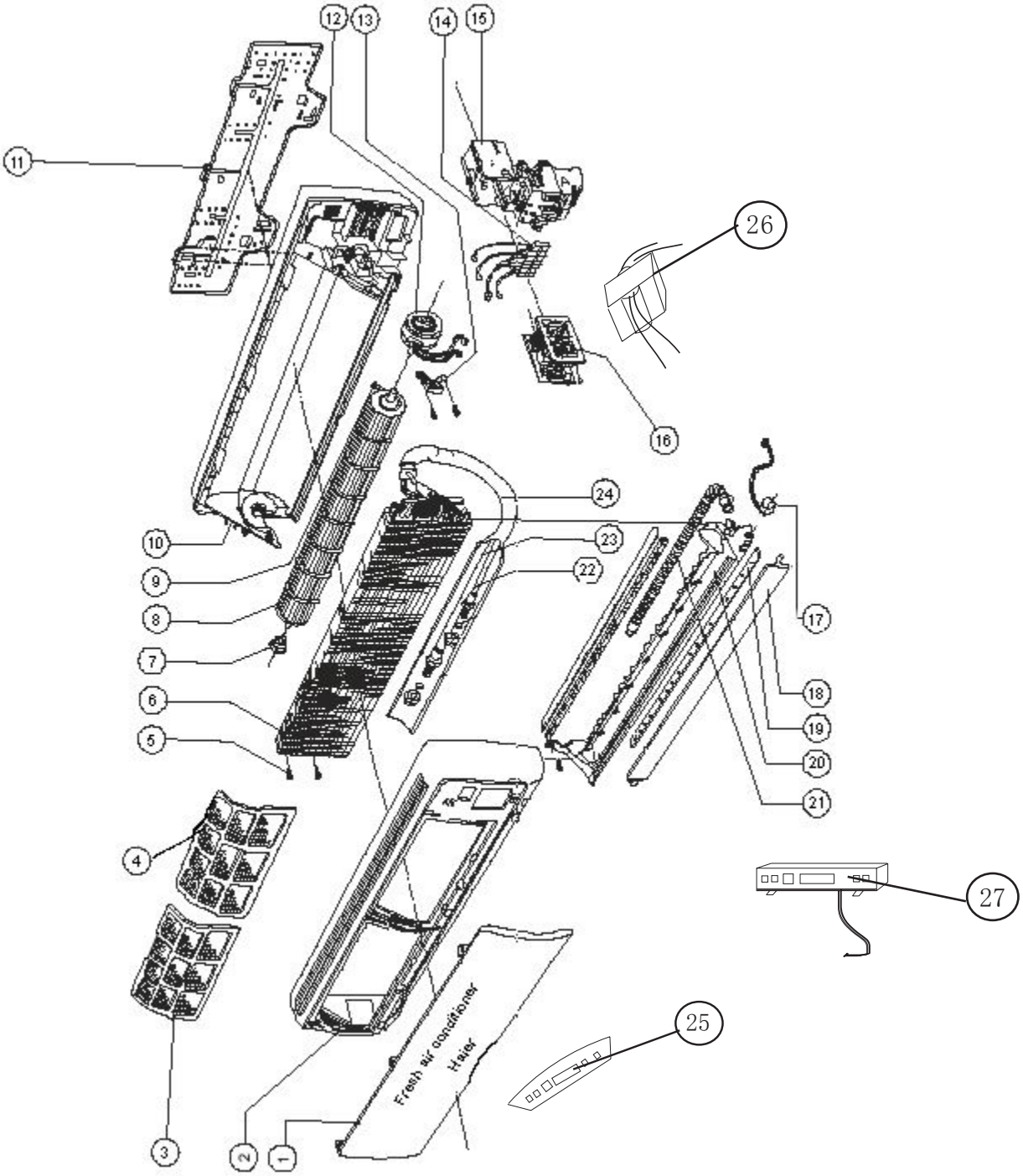
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Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	0010202192	Front grill	1	AS122XCBAA	0.00%	0.000%	×
2	0010802130	Front panel	1	AS122XCBAA	0.00%	0.000%	×
3	0010202204	Air filter (left)	1	AS122XCBAA	0.00%	0.000%	×
4	0010202205	Air filter (right)	1	AS122XCBAA	0.00%	0.000%	×
5	001A5313003	Screw	4	AS122XCBAA	0.00%	0.000%	×
6	0010704200	Heat exchanger	1	AS122XCBAA	0.01%	0.012%	
7	001A0300005	Bearing	1	AS122XCBAA	0.00%	0.000%	×
8	0010202415	Fan	1	AS122XCBAA	0.02%	0.024%	*
9	001A5002088	Screw	1	AS122XCBAA	0.00%	0.000%	×
10	001A0100206	Bottom plate	1	AS122XCBAA	0.00%	0.000%	×
11	001A1301216	Mounting plate	1	AS122XCBAA	0.00%	0.000%	×
12	001A3000052	Motor	1	AS122XCBAA	0.02%	0.024%	*
13	001A1431372	Motor cover	1	AS122XCBAA	0.00%	0.000%	×
14	0010401858	terminal block	1	AS122XCBAA	0.00%	0.000%	×
15	0010202198	Control box	1	AS122XCBAA	0.00%	0.000%	×
16	0010451213	PC board	1	AS122XCBAA	0.04%	0.048%	*
17	0010402433	Swing motor	2	AS122XCBAA	0.02%	0.024%	*
18	001A1431028	Flap	1	AS122XCBAA	0.00%	0.000%	×
19	001A2239006A	Cushion	1	AS122XCBAA	0.00%	0.000%	×
20	0010802133	Drain pan	1	AS122XCBAA	0.00%	0.000%	×
21	001A0900011	Drain hose	1	AS122XCBAA	0.00%	0.000%	×
22	0010703601	Suction pipe assy	1	AS122XCBAA	0.00%	0.000%	×
23	0010703607	Discharge pipe tube	1	AS122XCBAA	0.00%	0.000%	×
24	001A1741744	Heat insulation tube	1	AS122XCBAA	0.00%	0.000%	×
25	0010202215	display board	1	AS122XCBAA	0.00%	0.000%	×
26	0010402315	transformer	1	AS122XCBAA	0.02%	0.024%	*
27	0010802132	display board assembly	1	AS122XCBAA	0.00%	0.000%	×

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Parts list

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1	0010202192	Front grill	1	AS142XCBAA	0.00%	0.000%	×
2	0010802130	Front panel	1	AS142XCBAA	0.00%	0.000%	×
3	0010202204	Air filter (left)	1	AS142XCBAA	0.00%	0.000%	×
4	0010202205	Air filter (right)	1	AS142XCBAA	0.00%	0.000%	×
5	001A5313003	Screw	4	AS142XCBAA	0.00%	0.000%	×
6	0010704200	Heat exchanger	1	AS142XCBAA	0.01%	0.012%	
7	001A0300005	Bearing	1	AS142XCBAA	0.00%	0.000%	×
8	0010202415	Fan	1	AS142XCBAA	0.02%	0.024%	*
9	001A5002088	Screw	1	AS142XCBAA	0.00%	0.000%	×
10	001A0100206	Bottom plate	1	AS142XCBAA	0.00%	0.000%	×
11	001A1301216	Mounting plate	1	AS142XCBAA	0.00%	0.000%	×
12	001A3000052	Motor	1	AS142XCBAA	0.02%	0.024%	*
13	001A1431372	Motor cover	1	AS142XCBAA	0.00%	0.000%	×
14	0010401858	terminal block	1	AS142XCBAA	0.00%	0.000%	×
15	0010202198	Control box	1	AS142XCBAA	0.00%	0.000%	×
16	0010451213	PC board	1	AS142XCBAA	0.04%	0.048%	*
17	0010402433	Swing motor	2	AS142XCBAA	0.02%	0.024%	*
18	001A1431028	Flap	1	AS142XCBAA	0.00%	0.000%	×
19	001A2239006A	Cushion	1	AS142XCBAA	0.00%	0.000%	×
20	0010802133	Drain pan	1	AS142XCBAA	0.00%	0.000%	×
21	001A0900011	Drain hose	1	AS142XCBAA	0.00%	0.000%	×
22	0010703601	Suction pipe assy	1	AS142XCBAA	0.00%	0.000%	×
23	0010703607	Discharge pipe tube	1	AS142XCBAA	0.00%	0.000%	×
24	001A1741744	Heat insulation tube	1	AS142XCBAA	0.00%	0.000%	×
25	0010202215	display board	1	AS142XCBAA	0.00%	0.000%	×
26	0010402315	transformer	1	AS142XCBAA	0.02%	0.024%	*
27	0010802132	display board assembly	1	AS142XCBAA	0.00%	0.000%	×

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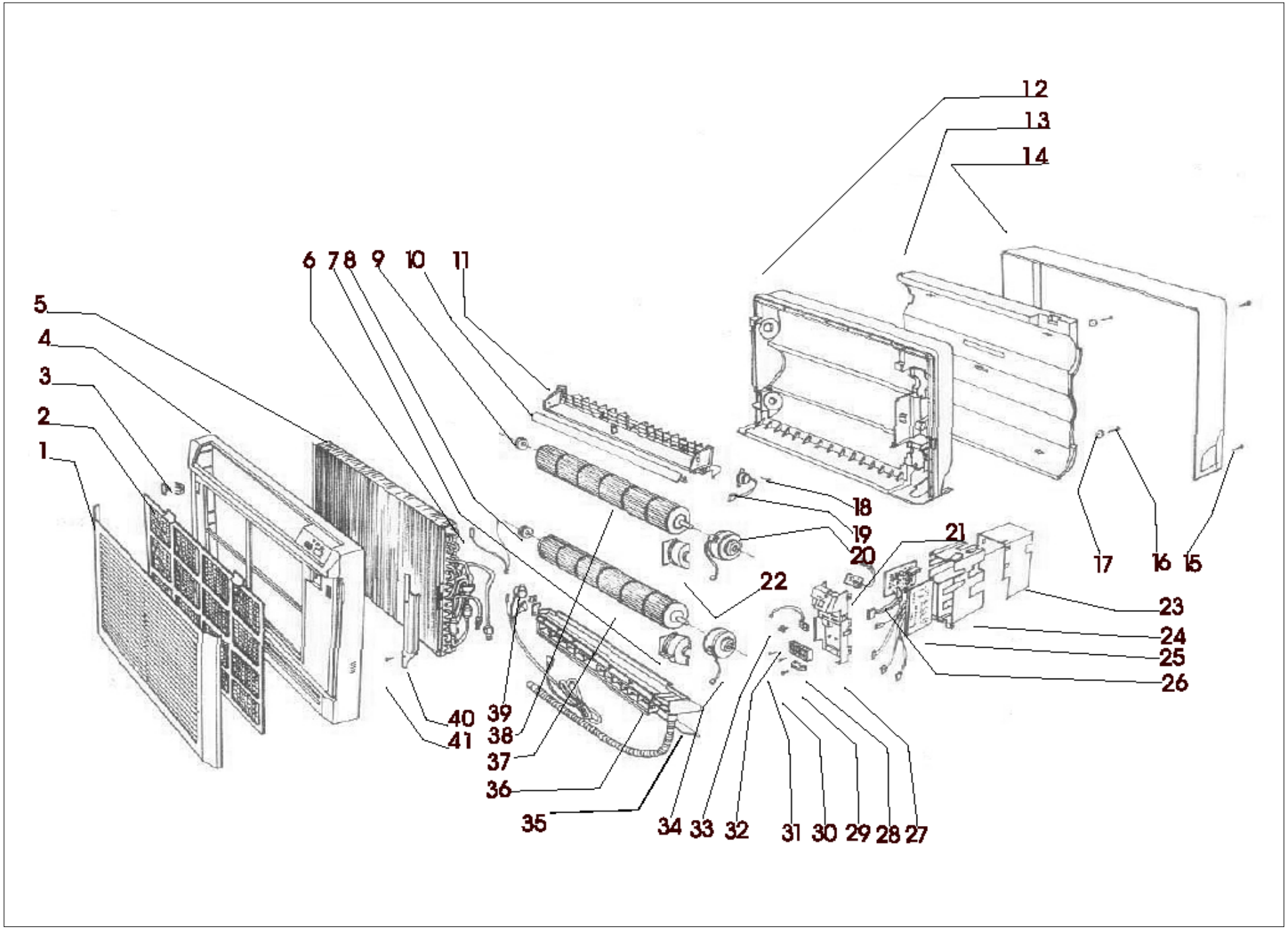
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AF12 and AF14 are the same:

Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	0010800954	front grill	1	AF122XCBAA	0.0000%	0.0000%	X
2	0010201169	air filter	1	AF122XCBAA	0.0000%	0.0000%	X
3	0010201288	button	1	AF122XCBAA	0.0000%	0.0000%	X
4	0010800923	front panel	1	AF122XCBAA	0.0000%	0.0000%	X
5	0010753052	heat exchanger	1	AF122XCBAA	0.0100%	0.0120%	
6	001A3900059	temperature sensor	1	AF122XCBAA	0.0100%	0.0120%	
7	0010800928	motor cover	1	AF122XCBAA	0.0000%	0.0000%	X
8	0010201176	bearing	1	AF122XCBAA	0.0000%	0.0000%	X
9	0010201176	bearing	1	AF122XCBAA	0.0000%	0.0000%	X
10	0010201191	flap	1	AF122XCBAA	0.0000%	0.0000%	X
11	0010800930	upper air outlet assy	1	AF122XCBAA	0.0000%	0.0000%	X
12	0010800924	bottom plate	1	AF122XCBAA	0.0000%	0.0000%	X
13	0010800932	plate cushion	1	AF122XCBAA	0.0000%	0.0000%	X
14	0010100571	back panel	1	AF122XCBAA	0.0000%	0.0000%	X
15	001A5002008	screw	4	AF122XCBAA	0.0000%	0.0000%	X
16	001A5002116	screw	5	AF122XCBAA	0.0000%	0.0000%	X
17	001A5401031	screw washer	5	AF122XCBAA	0.0000%	0.0000%	X
18	001A5002118	screw	2	AF122XCBAA	0.0000%	0.0000%	X
19	0010400935	swing motor	1	AF122XCBAA	0.0200%	0.0240%	*
20	0010400933	indoor motor 1	1	AF122XCBAA	0.0200%	0.0240%	*
21	0010850276	display board	1	AF122XCBAA	0.0000%	0.0000%	X
22	0010800928	motor cover	1	AF122XCBAA	0.0000%	0.0000%	X
23	0010100572	control box shell	1	AF122XCBAA	0.0000%	0.0000%	X
24	0010201188	control box	1	AF122XCBAA	0.0000%	0.0000%	X
25	0010451212	main board	1	AF122XCBAA	0.0100%	0.0120%	
26	0010451212*1	power board	1	AF122XCBAA	0.0100%	0.0120%	
27	0010201189	service cover	1	AF122XCBAA	0.0000%	0.0000%	X
28	0010451333	terminal block	1	AF122XCBAA	0.0100%	0.0120%	
29	0010201269	wiring clamp	1	AF122XCBAA	0.0000%	0.0000%	X
30	001A5002099	screw	3	AF122XCBAA	0.0000%	0.0000%	X
31	001A5002236	screw	3	AF122XCBAA	0.0000%	0.0000%	X
32	0010201275	hand switch	1	AF122XCBAA	0.0000%	0.0000%	X
33	0010451212*2	select board	1	AF122XCBAA	0.0000%	0.0000%	X
34	0010400934	indoor motor 2	1	AF122XCBAA	0.0200%	0.0240%	*
35	0010201209	flap2	1	AF122XCBAA	0.0000%	0.0000%	X
36	0010800931	lower air outlet assy	1	AF122XCBAA	0.0000%	0.0000%	X
37	0010201184	lower fan	1	AF122XCBAA	0.0200%	0.0240%	*
38	0010201175	upper fan	1	AF122XCBAA	0.0200%	0.0240%	*
39	0010400936	swing motor	1	AF122XCBAA	0.0200%	0.0240%	*
40	0010201281	cover panel	1	AF122XCBAA	0.0000%	0.0000%	X
41	001A5002236	screw	2	AF122XCBAA	0.0000%	0.0000%	X

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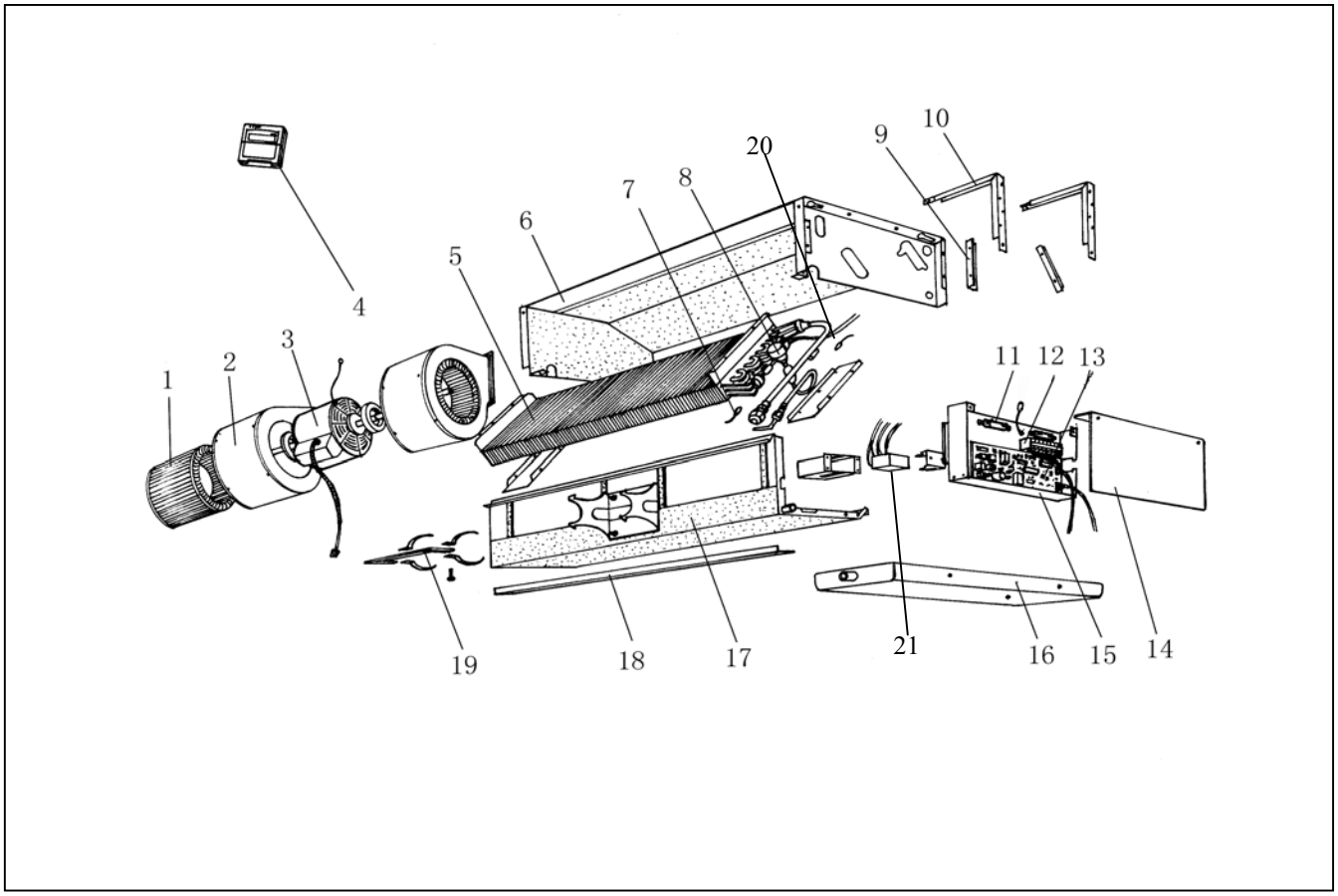
Exploded View



Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	*0010851501.1	fan	2	AE122XCBAA	0.0200%	0.0240%	*
2	*0010851501.2	scroll case	2	AE122XCBAA	0.0000%	0.0000%	X
3	*0010851501.3	fan motor	1	AE122XCBAA	0.0200%	0.0240%	*
4	0010451521	wire remote controller	1	AE122XCBAA	0.0100%	0.0120%	
5	*0010851501.4	evaporator	1	AE122XCBAA	0.0000%	0.0000%	X
6	*0010851501.5	shell	1	AE122XCBAA	0.0000%	0.0000%	X
7	001A3900006	gas pipe temperature sensor	1	AE122XCBAA	0.0100%	0.0120%	
20	/	/	/	AE122XCBAA	/	/	/
8	*0010851501.6	PMV	1	AE122XCBAA	0.0100%	0.0120%	
21	*0010851501.7	PMV coil	1	AE122XCBAA	0.0000%	0.0000%	X
9	*0010851501.8	subsiduary drain pan support bracket	1	AE122XCBAA	0.0000%	0.0000%	X
10	*0010851501.9	electricial box support bracket	1	AE122XCBAA	0.0000%	0.0000%	X
11	001A5745116	clip plate	2	AE122XCBAA	0.0000%	0.0000%	X
12	0010450322	terminal block	1	AE122XCBAA	0.0100%	0.0120%	
13	0010451847	indoor PCB	1	AE122XCBAA	0.0200%	0.0240%	*
14	0010250135	electricial box cover	1	AE122XCBAA	0.0000%	0.0000%	X
15	0010250134	electricial box	1	AE122XCBAA	0.0100%	0.0120%	
16	*0010851501.10	subsiduary drain pan	1	AE122XCBAA	0.0000%	0.0000%	X
17	*0010851501.11	drain pan	1	AE122XCBAA	0.0000%	0.0000%	X
18	*0010851501.12	outlet airflow flange	1	AE122XCBAA	0.0000%	0.0000%	X
19	*0010851501.13	motor mix ring	1	AE122XCBAA	0.0000%	0.0000%	X

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Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	*0010851502.1	fan	2	AE142XCBAA	0.0200%	0.0240%	*
2	*0010851502.2	scroll case	2	AE142XCBAA	0.0000%	0.0000%	X
3	*0010851502.3	fan motor	1	AE142XCBAA	0.0200%	0.0240%	*
4	0010451521	wire remote controller	1	AE142XCBAA	0.0100%	0.0120%	
5	*0010851502.4	evaporator	1	AE142XCBAA	0.0000%	0.0000%	X
6	*0010851502.5	shell	1	AE142XCBAA	0.0000%	0.0000%	X
7	001A3900006	gas pipe temperature sensor	1	AE142XCBAA	0.0100%	0.0120%	
20	/	/	/	AE142XCBAA	/	/	/
8	*0010851502.6	PMV	1	AE142XCBAA	0.0100%	0.0120%	
21	*0010851502.7	PMV coil	1	AE142XCBAA	0.0000%	0.0000%	X
9	*0010851502.8	subsiduary drain pan support bracket	1	AE142XCBAA	0.0000%	0.0000%	X
10	*0010851502.9	electricial box support bracket	1	AE142XCBAA	0.0000%	0.0000%	X
11	001A5745116	clip plate	2	AE142XCBAA	0.0000%	0.0000%	X
12	0010450322	terminal block	1	AE142XCBAA	0.0100%	0.0120%	
13	0010451847	indoor PCB	1	AE142XCBAA	0.0200%	0.0240%	*
14	0010250135	electricial box cover	1	AE142XCBAA	0.0000%	0.0000%	X
15	0010250134	electricial box	1	AE142XCBAA	0.0100%	0.0120%	
16	*0010851502.10	subsiduary drain pan	1	AE142XCBAA	0.0000%	0.0000%	X
17	*0010851502.11	drain pan	1	AE142XCBAA	0.0000%	0.0000%	X
18	*0010851502.12	outlet airflow flange	1	AE142XCBAA	0.0000%	0.0000%	X
19	*0010851502.13	motor mix ring	1	AE142XCBAA	0.0000%	0.0000%	X

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Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	*0010851572.1	fan	2	AE212XCBAA	0.0200%	0.0240%	*
2	*0010851572.2	scroll case	2	AE212XCBAA	0.0000%	0.0000%	X
3	*0010851572.3	fan motor	1	AE212XCBAA	0.0200%	0.0240%	*
4	0010451521	wire remote controller	1	AE212XCBAA	0.0100%	0.0120%	
5	*0010851572.4	evaporator	1	AE212XCBAA	0.0000%	0.0000%	X
6	*0010851572.5	shell	1	AE212XCBAA	0.0000%	0.0000%	X
7	001A3900006	gas pipe temperature sensor	1	AE212XCBAA	0.0100%	0.0120%	
20	001A3900005	sensor	1	AE212XCBAA	0.0100%	0.0120%	
8	*0010851572.6	PMV	1	AE212XCBAA	0.0100%	0.0120%	
21	*0010851572.7	PMV coil	1	AE212XCBAA	0.0000%	0.0000%	X
9	*0010851572.8	subsiduary drain pan support bracket	1	AE212XCBAA	0.0000%	0.0000%	X
10	*0010851572.9	electricial box support bracket	1	AE212XCBAA	0.0000%	0.0000%	X
11	001A5745116	clip plate	2	AE212XCBAA	0.0000%	0.0000%	X
12	0010450322	terminal block	1	AE212XCBAA	0.0100%	0.0120%	
13	0010451847	indoor PCB	1	AE212XCBAA	0.0200%	0.0240%	*
14	0010250135	electricial box cover	1	AE212XCBAA	0.0000%	0.0000%	X
15	0010250134	electricial box	1	AE212XCBAA	0.0100%	0.0120%	
16	*0010851572.10	subsiduary drain pan	1	AE212XCBAA	0.0000%	0.0000%	X
17	*0010851572.11	drain pan	1	AE212XCBAA	0.0000%	0.0000%	X
18	*0010851572.12	outlet airflow flange	1	AE212XCBAA	0.0000%	0.0000%	X
19	*0010851572.13	motor mix ring	1	AE212XCBAA	0.0000%	0.0000%	X

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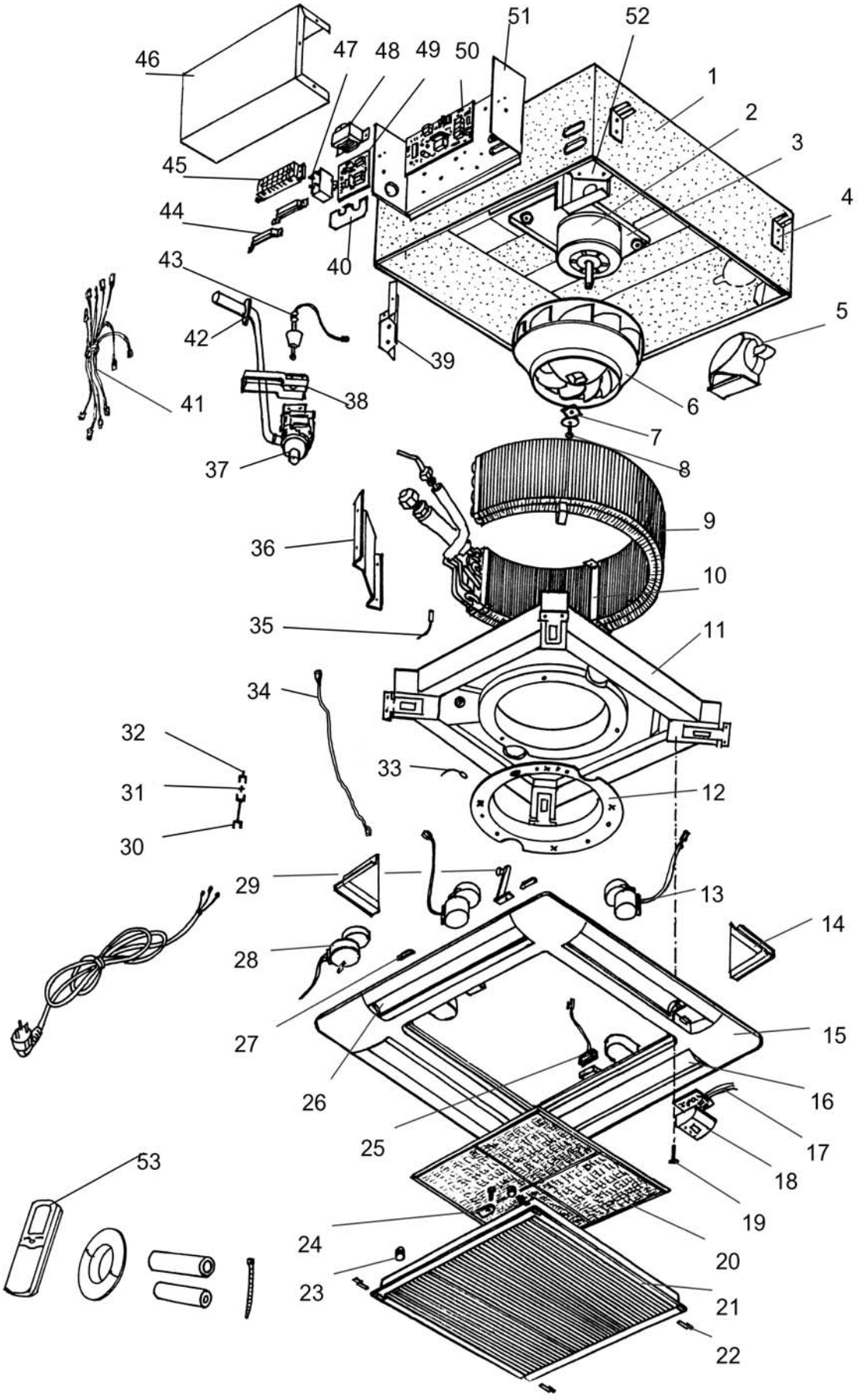
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Parts list

No.	Spare parts number	Spare parts description in English	Qty.	Model	Failure rate	the proportion of the spare-part stock	Remark
1	0010851179	Guard assembly	1	AB122XCBAA	0.0000%	0.0000%	X
2	0010400705	Indoor fan motor	1	AB122XCBAA	0.0200%	0.0240%	*
3	0010100531	Motor fix plate	1	AB122XCBAA	0.0000%	0.0000%	X
4	0010151123	Swing	4	AB122XCBAA	0.0000%	0.0000%	X
5	0010201129	Ventilate duct	1	AB122XCBAA	0.0000%	0.0000%	X
6	0010250024	Centrifugal fan	1	AB122XCBAA	0.0200%	0.0240%	*
7	0010250101	Fan in-built part	1	AB122XCBAA	0.0000%	0.0000%	X
8	001A5102050	flange screw	1	AB122XCBAA	0.0000%	0.0000%	X
9	0010755124	Evaporator assembly	1	AB122XCBAA	0.0000%	0.0000%	X
10	0010100541	Evaporator fix nip	2	AB122XCBAA	0.0000%	0.0000%	X
11	0010201132	Drain pan	1	AB122XCBAA	0.0000%	0.0000%	X
12	0010201134	Wind ring	1	AB122XCBAA	0.0000%	0.0000%	X
14	0010250066	Motor box cover	4	AB122XCBAA	0.0000%	0.0000%	X
15	0010250049	Panel	1	AB122XCBAA	0.0000%	0.0000%	X
16	0010250050	Airflow oriented board 1	3	AB122XCBAA	0.0000%	0.0000%	X
17	0010450083	receive panel	1	AB122XCBAA	0.0000%	0.0000%	X
18	0010250054	Indicator light cover	1	AB122XCBAA	0.0000%	0.0000%	X
19	001A5002088	Bolt 4*16 BTHC	4	AB122XCBAA	0.0000%	0.0000%	X
20	0010250053	Air filter	1	AB122XCBAA	0.0000%	0.0000%	X
21	0010250052	Inlet grill	1	AB122XCBAA	0.0000%	0.0000%	X
22	0010250257	fixed bolt	4	AB122XCBAA	0.0000%	0.0000%	X
23	0010250058	Stationary rings	2	AB122XCBAA	0.0000%	0.0000%	X
24	0010250065	Axis sleeve	1	AB122XCBAA	0.0000%	0.0000%	X
25	/	/	/	AB122XCBAA	/	/	X
26	0010250051	Airflow oriented board 2	1	AB122XCBAA	0.0000%	0.0000%	X
27	0010250057	Pull on line hole	4	AB122XCBAA	0.0000%	0.0000%	X
28	0010850097	Swing motor assembly	1	AB122XCBAA	0.0200%	0.0240%	*
29	0010250056	Holding pole	2	AB122XCBAA	0.0000%	0.0000%	X
30	0010250062	Connecting rod	3	AB122XCBAA	0.0000%	0.0000%	X
31	0010250063	Coupler	6	AB122XCBAA	0.0000%	0.0000%	X
32	0010250064	Connection	8	AB122XCBAA	0.0000%	0.0000%	X
33	0010400885	Ambient temp. Sensor	1	AB122XCBAA	0.0100%	0.0120%	
34	001A3900006	gas Pipe temp. sensor	1	AB122XCBAA	0.0100%	0.0120%	
35	0010400158	liquid Pipe temp. sensor	1	AB122XCBAA	0.0100%	0.0120%	
36	0010100536	Partition plate	1	AB122XCBAA	0.0000%	0.0000%	X
37	0010450169	Water pump motor	1	AB122XCBAA	0.0200%	0.0240%	*
38	0010150041	Water pump motor bracket	1	AB122XCBAA	0.0000%	0.0000%	X
39	0010100532	Fix plate	1	AB122XCBAA	0.0000%	0.0000%	X
40	0010100528	Lock plate	1	AB122XCBAA	0.0000%	0.0000%	X
41	0010451311	Indoor wiring assembly	1	AB122XCBAA	0.0100%	0.0120%	
42	001A14341141	Drainage pipe	1	AB122XCBAA	0.0000%	0.0000%	X
43	001A3400160	Level switch	1	AB122XCBAA	0.0000%	0.0000%	X
44	001A14311292	Power line clip	2	AB122XCBAA	0.0000%	0.0000%	X
45	001A4000106	Terminal block	1	AB122XCBAA	0.0100%	0.0120%	
46	0010100538	Eletrical box cover	1	AB122XCBAA	0.0000%	0.0000%	X
47	001A3600018	Fan motor capacitor 4 uf	1	AB122XCBAA	0.0400%	0.0480%	*
48	/	/	/	AB122XCBAA	/	/	
50	0010451847	Indoor PCB	1	AB122XCBAA	0.0200%	0.0240%	*
51	0010100537	Eletrical box	1	AB122XCBAA	0.0100%	0.0120%	
52	0010800870	Wiring partition	1	AB122XCBAA	0.0000%	0.0000%	X
53	0010451255	Infrared remote controller	1	AB122XCBAA	0.0000%	0.0000%	X

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Parts list

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1	0010851179	Guard assembly	1	AB142XCBAA	0.0000%	0.0000%	X
2	0010400705	Indoor fan motor	1	AB142XCBAA	0.0200%	0.0240%	*
3	0010100531	Motor fix plate	1	AB142XCBAA	0.0000%	0.0000%	X
4	0010151123	Swing	4	AB142XCBAA	0.0000%	0.0000%	X
5	0010201129	Ventilate duct	1	AB142XCBAA	0.0000%	0.0000%	X
6	0010250024	Centrifugal fan	1	AB142XCBAA	0.0200%	0.0240%	*
7	0010250101	Fan in-built part	1	AB142XCBAA	0.0000%	0.0000%	X
8	001A5102050	flange screw	1	AB142XCBAA	0.0000%	0.0000%	X
9	0010755125	Evaporator assembly	1	AB142XCBAA	0.0000%	0.0000%	X
10	0010100541	Evaporator fix nip	2	AB142XCBAA	0.0000%	0.0000%	X
11	0010201132	Drain pan	1	AB142XCBAA	0.0000%	0.0000%	X
12	0010201134	Wind ring	1	AB142XCBAA	0.0000%	0.0000%	X
14	0010250066	Motor box cover	4	AB142XCBAA	0.0000%	0.0000%	X
15	0010250049	Panel	1	AB142XCBAA	0.0000%	0.0000%	X
16	0010250050	Airflow oriented board 1	3	AB142XCBAA	0.0000%	0.0000%	X
17	0010450083	receive panel	1	AB142XCBAA	0.0000%	0.0000%	X
18	0010250054	Indicator light cover	1	AB142XCBAA	0.0000%	0.0000%	X
19	001A5002088	Bolt 4*16 BTHC	4	AB142XCBAA	0.0000%	0.0000%	X
20	0010250053	Air filter	1	AB142XCBAA	0.0000%	0.0000%	X
21	0010250052	Inlet grill	1	AB142XCBAA	0.0000%	0.0000%	X
22	0010250257	fixed bolt	4	AB142XCBAA	0.0000%	0.0000%	X
23	0010250058	Stationary rings	2	AB142XCBAA	0.0000%	0.0000%	X
24	0010250065	Axis sleeve	1	AB142XCBAA	0.0000%	0.0000%	X
25	/	/	/	AB142XCBAA	/	/	X
26	0010250051	Airflow oriented board 2	1	AB142XCBAA	0.0000%	0.0000%	X
27	0010250057	Pull on line hole	4	AB142XCBAA	0.0000%	0.0000%	X
28	0010850097	Swing motor assembly	1	AB142XCBAA	0.0200%	0.0240%	*
29	0010250056	Holding pole	2	AB142XCBAA	0.0000%	0.0000%	X
30	0010250062	Connecting rod	3	AB142XCBAA	0.0000%	0.0000%	X
31	0010250063	Coupler	6	AB142XCBAA	0.0000%	0.0000%	X
32	0010250064	Connection	8	AB142XCBAA	0.0000%	0.0000%	X
33	0010400885	Ambient temp. Sensor	1	AB142XCBAA	0.0100%	0.0120%	
34	001A3900006	gas Pipe temp. sensor	1	AB142XCBAA	0.0100%	0.0120%	
35	0010400158	liquid Pipe temp. sensor	1	AB142XCBAA	0.0100%	0.0120%	
36	0010100536	Partition plate	1	AB142XCBAA	0.0000%	0.0000%	X
37	0010450169	Water pump motor	1	AB142XCBAA	0.0200%	0.0240%	*
38	0010150041	Water pump motor bracket	1	AB142XCBAA	0.0000%	0.0000%	X
39	0010100532	Fix plate	1	AB142XCBAA	0.0000%	0.0000%	X
40	0010100528	Lock plate	1	AB142XCBAA	0.0000%	0.0000%	X
41	0010451311	Indoor wiring assembly	1	AB142XCBAA	0.0100%	0.0120%	
42	001A14341141	Drainage pipe	1	AB142XCBAA	0.0000%	0.0000%	X
43	001A3400160	Level switch	1	AB142XCBAA	0.0000%	0.0000%	X
44	001A14311292	Power line clip	2	AB142XCBAA	0.0000%	0.0000%	X
45	001A4000106	Terminal block	1	AB142XCBAA	0.0100%	0.0120%	
46	0010100538	Eletrical box cover	1	AB142XCBAA	0.0000%	0.0000%	X
47	001A3600018	Fan motor capacitor 4 uf	1	AB142XCBAA	0.0400%	0.0480%	*
48	/	/	/	AB142XCBAA	/	/	
50	0010451847	Indoor PCB	1	AB142XCBAA	0.0200%	0.0240%	*
51	0010100537	Eletrical box	1	AB142XCBAA	0.0100%	0.0120%	
52	0010800870	Wiring partition	1	AB142XCBAA	0.0000%	0.0000%	X
53	0010451255	Infrared remote controller	1	AB142XCBAA	0.0000%	0.0000%	X

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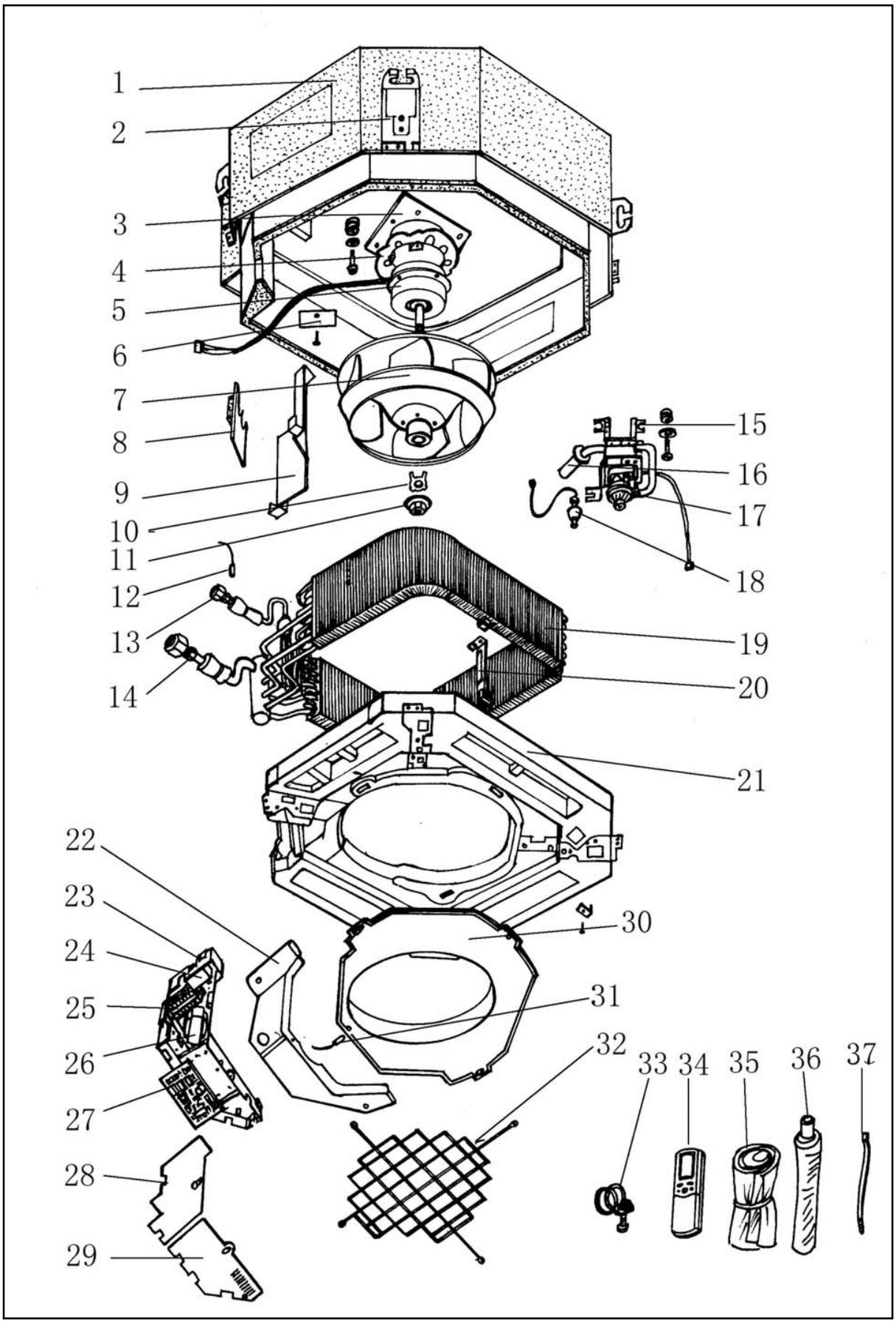
Exploded view

Model AB212XCBAA



Parts list

No.	Spare parts number	Spare parts description in english	Qty.	Model	Failure rate	the proportion of the spare-part	Remark
1	001A0100708	Bottom plate assy.	1	AB212XCBAA	0.00%	0.000%	×
2	001A1301741	Swing	4	AB212XCBAA	0.00%	0.000%	×
3	001A1301743	Motor holder	1	AB212XCBAA	0.00%	0.000%	×
4	001A1301668	Motor bracket	1	AB212XCBAA	0.00%	0.000%	×
5	001A3000219	Indoor fan motor	1	AB212XCBAA	0.02%	0.024%	*
6	001A1301742	wiring fix plate	1	AB212XCBAA	0.00%	0.000%	×
7	001A2300088	Indoor fan	1	AB212XCBAA	0.02%	0.024%	*
8	001A1301752	pipe holder plate	1	AB212XCBAA	0.00%	0.000%	×
9	001A1301751	Evaporator holded plate	1	AB212XCBAA	0.00%	0.000%	×
10	001A1301710	Fan in-built part	1	AB212XCBAA	0.00%	0.000%	×
11	001A5102015	Flange screw nut	1	AB212XCBAA	0.00%	0.000%	×
12	001A3900006	Pipe temp. sensor indoor	1	AB212XCBAA	0.00%	0.000%	×
13	0010700309	liquid pipe assy.	1	AB212XCBAA	0.00%	0.000%	×
14	0010700299	air pipe assy.	1	AB212XCBAA	0.00%	0.000%	×
15	001A0100711	Pump Bracket assy.	1	AB212XCBAA	0.00%	0.000%	×
16	001A14001243	Drainage pipe	1	AB212XCBAA	0.00%	0.000%	×
17	0010450169	Water pump motor	1	AB212XCBAA	0.02%	0.024%	*
18	0010450154	Float Switch	1	AB212XCBAA	0.00%	0.000%	×
19	0010750434	Evaporator assembly	1	AB212XCBAA	0.01%	0.012%	
20	001A1301750	Evaporator holder	2	AB212XCBAA	0.00%	0.000%	×
21	001A0900089	Drain pan assy.	1	AB212XCBAA	0.00%	0.000%	×
22	001A1301753	bottom plate of electrical box	1	AB212XCBAA	0.00%	0.000%	×
23	001A1232305	Eletrical box	1	AB212XCBAA	0.00%	0.000%	×
24	001A3600098	Fan motor capacitor 3 uf	1	AB212XCBAA	0.04%	0.048%	*
25	0010451265	Terminal block	1	AB212XCBAA	0.00%	0.000%	×
	001A4000171	Terminal block	1	AB212XCBAA	0.00%	0.000%	×
26	0010451262	Transformer	1	AB212XCBAA	0.01%	0.012%	
27	0010451847	indoor PCB	1	AB212XCBAA	0.02%	0.024%	*
28	001A1232306	Electrical box cover 1	1	AB212XCBAA	0.00%	0.000%	×
29	001A1232307	Electrical box cover2	1	AB212XCBAA	0.00%	0.000%	×
30	001A1431661	inlet circle	1	AB212XCBAA	0.00%	0.000%	×
31	001A3900159	environment temp. Sensor indoor	1	AB212XCBAA	0.00%	0.000%	×
32	001A1301756	guarding grill	1	AB212XCBAA	0.00%	0.000%	×
33	001A13001077	hoop	1	AB212XCBAA	0.00%	0.000%	×
34	0010451255	Controller	1	AB212XCBAA	0.01%	0.012%	
35	001A1434574A	Heat insulation pipe 1	1	AB212XCBAA	0.00%	0.000%	×
36	001A1434925	Heat insulation pipe2	1	AB212XCBAA	0.00%	0.000%	×
37	001A6645007	cable clamp	6	AB212XCBAA	0.00%	0.000%	×

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PERFORMANCE CURVES

Cooling capacity chart (kW) (change with the temperature)								
AU422XIBAA								
Indoor temp.	Outdoor temp.							
D.B. / W.B.	18℃	20℃	25℃	32℃	35℃/24℃	40℃	43℃	46℃
18/14℃	11.6	11.4	10.9	10.4	9.8	9.3	8.8	8.4
20/15℃	12.0	11.7	11.4	10.9	10.2	9.8	9.3	8.8
22/16℃	12.4	12.1	11.7	11.5	11.0	10.1	9.8	9.3
25/18℃	13.3	12.9	12.7	12.3	11.8	11.0	10.7	10.2
27/19℃	13.8	13.4	13.2	12.9	12.5	11.4	11.1	10.7
30/22℃	15.4	15.0	14.5	14.1	13.6	12.7	12.3	11.8
32/23℃	16.0	15.5	15.1	14.5	14.0	13.3	12.8	12.2
Power consumption chart (kW) (change with the temperature)								
AU422XIBAA								
Indoor temp.	Outdoor temp.							
D.B. / W.B.	18℃	20℃	25℃	32℃	35℃/24℃	40℃	43℃	46℃
18/14℃	4.0	4.1	4.2	4.5	4.7	5.1	5.3	5.5
20/15℃	4.0	4.1	4.2	4.6	4.7.	5.1	5.4	5.6
22/16℃	4.1	4.2	4.2	4.6	4.8	5.2	5.4	5.7
25/18℃	4.1	4.3	4.3	4.7	4.9	5.3	5.6	5.8
27/19℃	4.2	4.4	4.4	4.8	5.0	5.4	5.6	5.9
30/22℃	4.4	4.5	4.6	5.0	5.2	5.6	5.8	6.1
32/23℃	4.5	4.6	4.6	5.0	5.2	5.7	5.9	6.2

High drop and long pipe: capacity modification curves

The data is measured in the normal condition: outdoor DB/WB 35/24, indoor DB/WB 27/19

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